

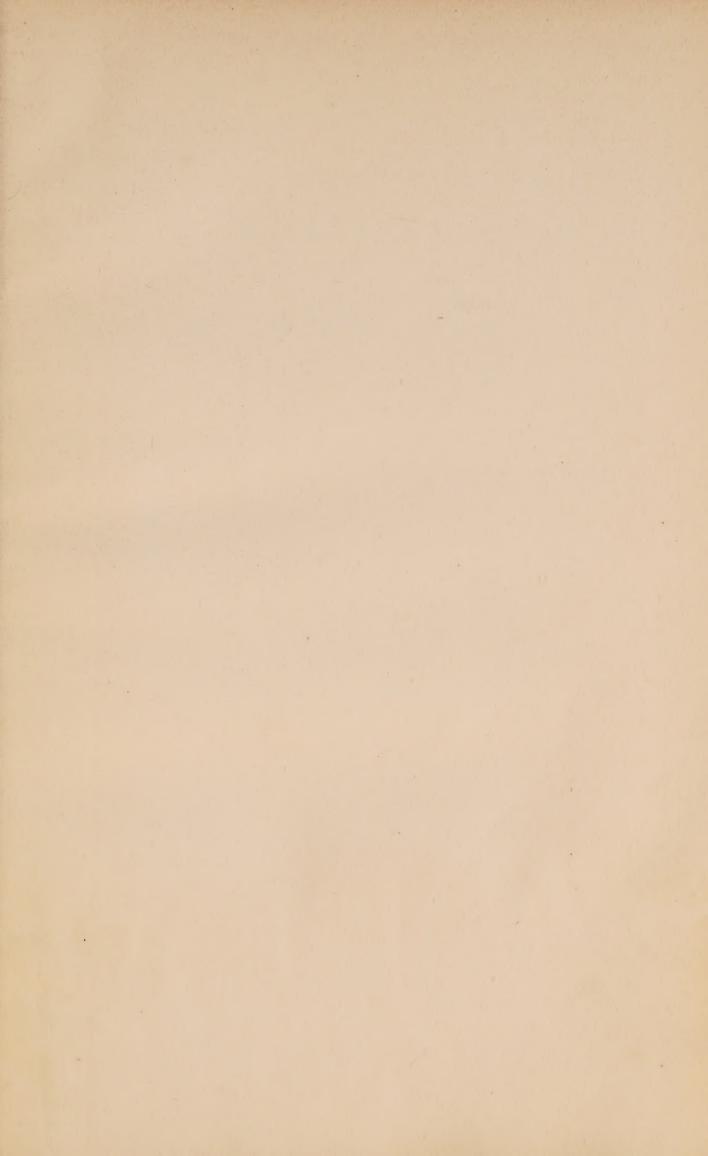
Columbia University Bulletin of Information

BARNARD COLLEGE

ANNOUNCEMENT

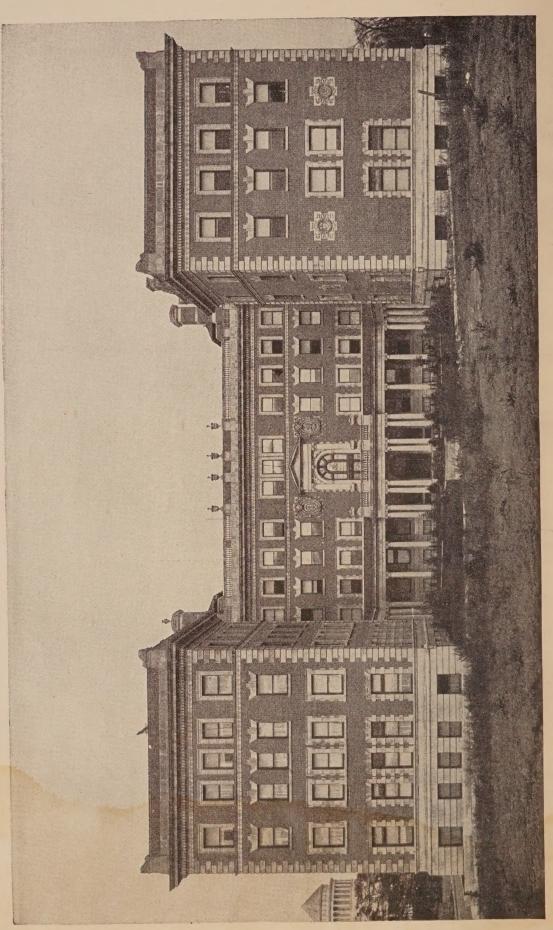
1908-1909







Digitized by the Internet Archive in 2025 with funding from Barnard College





Columbia University Bulletin of Information

BARNARD COLLEGE

ANNOUNCEMENT

1908-1909

April, 1908

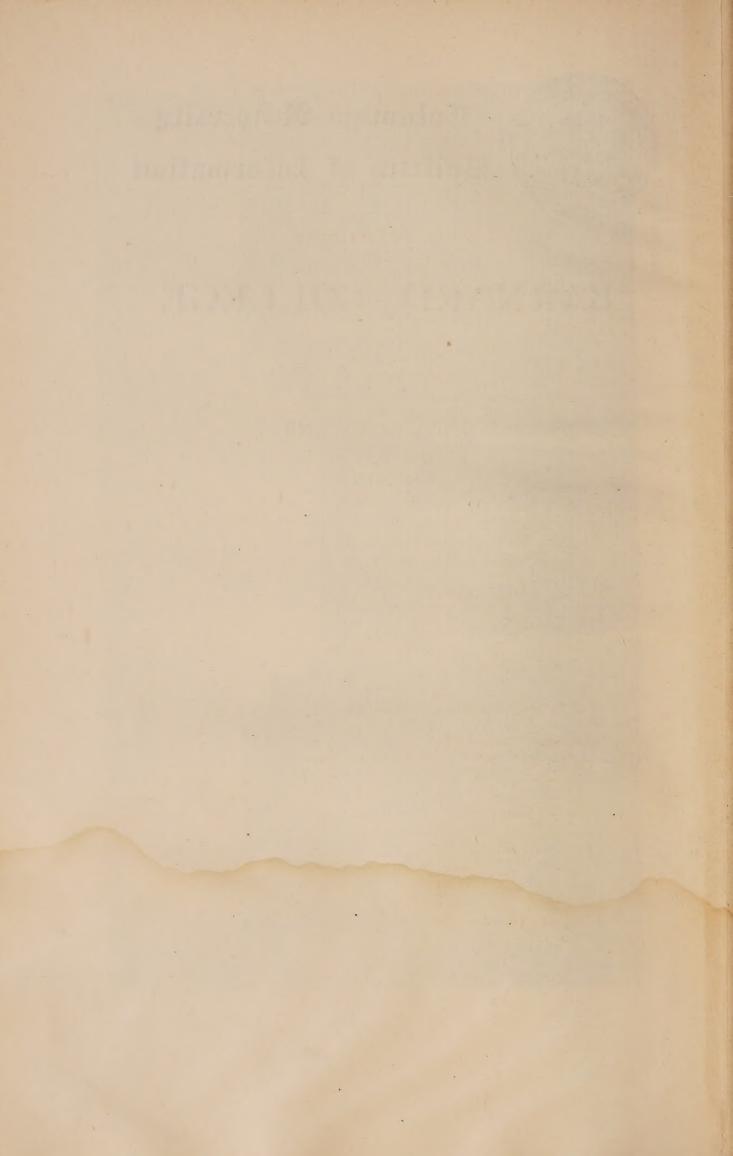


TABLE OF CONTENTS

TRUSTEES						. E	PAGE 5
STANDING COMMITTEES							7
ASSOCIATE MEMBERS							8
Founders							10
FACULTY							II
OTHER OFFICERS							12
STANDING COMMITTEES OF THE FAC	CULTY						13
OFFICERS OF ADMINISTRATION							13
RELATION OF BARNARD COLLEGE T	O COL	UMBI	A UNI	VERSI	TY		14
GENERAL STATEMENT							16
Courses of Study						,	16
Attendance							16
Academic Discipline .							16
Admission to the Freshman Clas	ss						17
Requirements for Admission							17
Time and Place of Entrance E	xamii	nation	S				18
Application for Examination				. 7			18
Examination Fee						. 1:	19
Division of Examination							20
Schedule of Examinations							20
Report of Entrance Examinat	ions						22
Certificates in Lieu of Entranc			tions				23
Entrance Conditions .							33
Probation							23
Admission to Advanced Standing	3						24
Admission as Special Students							25
DEFINITIONS OF REQUIREMENTS IN	EACH	Subj	ECT				26
Submission of Note-books, Dra							43
REGISTRATION AND ENROLMENT	_						44
Leave of Absence							45
Honorable Dismissal .							45
GENERAL STATEMENT REGARDING	FEES .	AND T	HE R	EGULA	TIONS	3	, 0
GOVERNING THEIR PAYMENT							45
Withdrawal							45
Fees							45
Dormitory Fees							46
Estimated Necessary Expenses	S				. 4		47
RESIDENCE HALL , ,							47
				8 1			

		PAGE
THE PROGRAM OF STUDIES		47
Program of Studies for the Degree of Bachelor of Art	s .	48
Program of Studies for the Degree of Bachelor of Scientific Program of Studies for the Degree of Bachelor of Scientific Program of Studies for the Degree of Bachelor of Scientific Program of Studies for the Degree of Bachelor of Scientific Program of Studies for the Degree of Bachelor of Scientific Program of Studies for the Degree of Bachelor of Scientific Program of Sci	ence .	49
General Two-Years' Course, not leading to a Degree		49
Options in the Professional Schools for Candidates for	ra	
Barnard College Degree		50
GENERAL REGULATIONS REGARDING EXAMINATIONS IN CO	URSE,	
CREDIT, AND ADVANCEMENT		51
SCHOLARSHIPS		53
Prizes		56
Honors		57
UNIVERSITY LIBRARY		58
CHAPEL SERVICE		58
STATISTICS		59
DEPARTMENTAL STATEMENTS		60
SCHEME OF ATTENDANCE		86
ACADEMIC CALENDAR		90

TRUSTEES

Chairman

SILAS B. BROWNELL, LL.D
Vice-Chairman
Mrs. A. A. Anderson 6 East 38th St.
Clerk
Frederick S. Wait 10 Wall St.
Treasurer
George A. Plimpton
SILAS B. BROWNELL, LL.D322 West 56th St.
Mrs. Joseph H. Choate 8 East 63d St.
Mrs. Alfred Meyer
George A. Plimpton
Mrs. James Talcott
Mrs. Henry Fairfield Osborn850 Madison Ave.
Mrs. A. A. Anderson
Frederick S. Wait vo Wall St.
Edward W. Sheldon 15 East 38th St.
Rev. WILLIAM M. GROSVENOR, D.D
SETH LOW, LL.D
Frederic B. Jennings
Mrs. Henry N. Munn
Nicholas Murray Butler, Ph.D., LL.D. (Cantab.), Litt. D. (Oxon.)
Columbia University Albert G. Milbank49 Wall St.
Mrs. Francis P. Kinnicutt
Miss Clara B. Spence
Charles Stewart Smith
Howard Townsend
Miss Florence Colgate
Mrs. Malcolm D. Whitman
JOHN G. MILBURN 54 Wall St.
Miss Mary Stuart Pullman



STANDING COMMITTEES

1908
Executive Committee

Dr. Brownell, Chairman Mrs. Anderson, Vice-Chairman Mr. Wait, Clerk

Dr. Butler Miss Colgate Dr. Grosvenor Mrs. Osborn
Mr. Plimpton
Mr. Sheldon

Committee on Finance

Mr. MILBURN, Chairman

Mr. Jennings Mr. Townsend
The Chairman of the Board of Trustees (ex-officio)

Committee on Buildings and Grounds

Miss Colgate, Chairman

MISS SPENCE Mr. PLIMPTON
THE PRESIDENT AND THE CHAIRMAN OF THE BOARD OF TRUSTEES
(ex-officio)

Committee on Education

Dr. GROSVENOR, Chairman

Mrs. Osborn

Mr. SHELDON

THE PRESIDENT AND THE CHAIRMAN OF THE BOARD OF TRUSTEES (ex-officio)

ASSOCIATE MEMBERS

Mrs. Robert Abbe West 50th St.
Mrs. Frederick P. Bellamy
Miss Helen Dawes Brown
Mrs. Wm. Adams Brown 114 East 30th St.
Mrs. Wm. C. Brownell
Mrs. WILLIAM H. CARPENTER253 West 100th St.
Mrs. Henry Clews
Miss Helen Gray Cone823 East 165th St.
Mrs. Arthur M. Dodge East 39th St.
Mrs. John French
Miss Jeannette L. Gilder 100 East 17th St.
Mrs. Almon Goodwin Wall St.
Mrs. James J. Goodwin West 54th St.
Mrs. Arnold Hague
Mrs. H. O. HAVEMEYER East 66th St.
Mrs. Henry Holt
Mrs. Alfred M. Hoyt934 Fifth Ave.
Mrs. M. L. Kellner Berkeley St. Cambridge, Mass.
Mrs. Seth Low 30 East 64th St.
Mrs. William Moir42 West 53d St.
Mrs. F. P. Olcott4 East 53d St.
Mrs. Samuel T. Peters East 37th St.
Mrs. Roger A. Pryor 3 West 69th St.
Mrs. Isaac L. Rice
Mrs. C. A. Runkle328 West 57th St.
Mrs. Russell Sage
Mrs. Jacob H. Schiff
Miss Agathe Schurz 24 East 91st St.
Mrs. Augustus D. ShepardFanwood, N. J.
Miss Mabel Slade 18 West 52d St.
Mrs. James Speyer
Miss Helen Phelps Stokes
Mrs. A. B. Stone
Mrs. Algernon Sydney Sullivan West 11th St.
Mrs. Roderick Terrycare of J. S. Morgan Co., London, England
Mrs. Frederick Ferris Thompson283 Madison Ave.
Miss Amy Townsend
Mrs. Schuyler Van Rensselaer 9 West 9th St.

Mrs. Henry Villard145 West 58th St.
Mrs. Chas. W. Watson500 Madison Ave.
Mrs. Everett P. Wheeler
Miss Alice Williams
Mrs. Edward WinslowShort Hills, N. J.
Mrs. William B. Wood
Mrs. Lorenzo G. Woodhouse

FOUNDERS

[Any donor of not less than \$5000 will be enrolled among the founders of Barnard College.]

Jacob H. Schiff Mrs. James J. Goodwin James Talcott In the name of

Josiah M. Fiske Mrs. Seth Low

Mrs. C. B. HACKLEY

*Joseph B. Bloomingdale

J. Pierpont Morgan

Mrs. Esther Herrman

Mrs. H. O. HAVEMEYER

Mrs. F. P. OLCOTT Miss Mabel Slade

Miss Olivia Phelps Stokes

*Mrs. J. S. T. Stranahan

JOHN D. ROCKEFELLER

Mrs. Cornelius Vanderbilt

Mrs. Joseph H. Choate

OLIVER H. PAYNE

Mrs. A. A. Anderson

Mrs. Van Wyck Brinckerhoff

Miss Emily H. Bourne

SETH LOW, LL.D
*Miss Emily O. Gibbes
Mrs. James Talcott

In the name of

LAZARUS STRAUS

Joseph Pulitzer

Jefferson Seligman

Mrs. Jabez A. Bostwick

Frederic B. Jennings John D. Archbold

Miss Matilda W. Bruce

ISAAC GUGGENHEIM

Mrs. Henry Fairfield Osborn

*J. HENRY SMITH

Louis Stern

WILLIAM K. VANDERBILT

*WILLIAM ZIEGLER

Mrs. John S. Kennedy

*Mrs. George Whitfield Collord

Estate of

ELEANOR BUTLER SANDERS

^{*} Deceased.

THE FACULTY

NICHOLAS MURRAY BUTLER, Ph.D., LL.D. (Cantab.), Litt.D. (Oxon.), President

WILLIAM T. BREWSTER, A.M., Acting Dean and Professor of English

EDWIN R. A. SELIGMAN, Ph.D., LL.D., McVickar Professor of Politica Economy

HERBERT L. OSGOOD, Ph.D., LL.D., Professor of History

EDWARD DELAVAN PERRY, Ph.D., LL.D., Jay Professor of Greek

George Rice Carpenter, A.B., D.C.L., Professor of Rhetoric and English Composition

Franklin Henry Giddings, Ph.D., LL.D., Professor of Sociology and the History of Civilization

JOHN B. CLARK, Ph.D., LL.D., Professor of Political Economy

James Rignall Wheeler, Ph.D., Professor of Greek Archaelogy and Art

FRANK N. COLE, Ph.D., Professor of Mathematics

JAMES HARVEY ROBINSON, Ph.D., Professor of History

CALVIN THOMAS, LL.D., Gebhard Professor of the Germanic Languages and Literatures

CARLO LEONARDO SPERANZA, A.M., B.ès L., Professor of Italian

WILLIAM P. TRENT, M.A., LL.D., D.C.L., Professor of English Literature

HERBERT GARDINER LORD, A.M., Professor of Philosophy

NELSON GLENN McCREA, Ph.D., Professor of Latin

LIVINGSTON FARRAND, A.M., M.D., Professor of Anthropology

HENRY E. CRAMPTON, Ph.D., Professor of Zoölogy

CHARLES KNAPP, Ph.D., Professor of Classical Philology

HENRY L. MOORE, Ph.D., Professor of Political Economy

HERBERT MAULE RICHARDS, Sc.D., Professor of Botany

MARGARET E. MALTBY, Ph.D., Adjunct Professor of Physics

Louis Auguste Loiseaux, B.S., Adjunct Professor of the Romance Languages and Literatures

JAMES T. SHOTWELL, Ph.D., Professor of History

GEORGE WILLIS BOTSFORD, Ph.D., Adjunct Professor of History

EDWARD KASNER, Ph.D., Adjunct Professor of Mathematics

CURTIS HIDDEN PAGE, Ph.D., Professor of the Romance Languages and Literatures

WILLIAM P. MONTAGUE, Ph.D., Adjunct Professor of Philosophy

GRACE A. HUBBARD, A.M., Adjunct Professor of English

MARY KINGSBURY SIMKHOVITCH, A.B., Adjunct Professor of Social Economy

MABEL FOOTE WEEKS, A.B., Adjunct Professor of English

Other Officers of Instruction

MARIE REIMER, Ph.D., Instructor in Chemistry

HENRY BARGY, A.M., Instructor in the Romance Languages and Literatures

GERTRUDE M. HIRST, Ph.D., Instructor in Classical Philology

WILHELM ALFRED BRAUN, Ph.D., Instructor in the Germanic Languages and Literatures

TRACY ELLIOT HAZEN, Ph.D., Instructor in Botany

RAYMOND C. OSBURN, Ph.D., Instructor in Zoölogy

Henri F. Muller, B. ès L., Tutor in the Romance Languages and Literatures

ELEANOR KELLER, A.B., Tutor in Chemistry

IDA H. OGILVIE, Ph.D., Tutor in Geology

*MARGARET A. REED, A.B., Tutor in Zoölogy

T. LESLIE SHEAR, Ph.D., Tutor in Classical Philology

HAROLD CHAPMAN BROWN, Ph.D., Tutor in Philosophy

Pauline Hamilton Dederer, A.B., Tutor in Zoölogy

ALEXANDER OTTO BECHERT, A.M., Tutor in the Germanic Languages and Literatures

SAMUEL R. WILLIAMS, Ph.D., Tutor in Physics

MARION E. LATHAM, A.M., Tutor in Botany

ALLEN WILSON PORTERFIELD, A.B., Tutor in the Germanic Languages and Literatures

EDGAR H. STURTEVANT, Ph.D., Tutor in Classical Philology

WILLIAM C. KRATHWOHL, A. B., Tutor in Mathematics

MAUDE ALICE HUTTMANN, A.M., Tutor in History

CLARK WISSLER, Ph.D., Lecturer in Anthropology

ALGERNON DE V. TASSIN, A.M., Lecturer in English

EUGENE E. AGGER, Ph.D., Lecturer in Political Economy

ROBERT EMMET CHADDOCK, A.M., Lecturer in Political Economy

HERBERT H. WOODROW, A.B., Lecturer in Psychology

VIRGINIA C. GILDERSLEEVE, A.M., Lecturer in English

CLARE M. HOWARD, A.M., Lecturer in English

GRACE POTTER REYNOLDS, A.M., Assistant in Chemistry

ELIZABETH ILSLEY THOMPSON, A.B., Assistant in Botany

Louise Hoyt Gregory, A.M., Assistant in Zoölogy

HERMON W. FARWELL, A.M., Assistant in Physics

Juliana S. Haskell, A.M., Assistant in the Germanic Languages and Literatures

Assistant in English
Assistant in Classical Philology

^{*} Absent on leave.

Standing Committees of the Faculty

COMMITTEE ON THE PROGRAM OF STUDIES: The DEAN, chairman, Professors Knapp, Richards, Shotwell, and Montague

COMMITTEE ON ADMISSIONS: Professors Cole, chairman, KNAPP and Dr. Hazen.

COMMITTEE ON SCHOLARSHIPS: The DEAN, chairman, Professor Hubbard and Dr. Hirst

COMMITTEE ON HONORS: Professors Robinson, chairman, Maltby, and Dr. Braun

COMMITTEE ON STUDENT ORGANIZATIONS: Dr. REIMER, chairman, Professors Moore and Weeks

Officers of Administration

N. W. LIGGETT, A.B., Bursar

ANNA E. H. MEYER, A.B., Secretary

MABEL FOOTE WEEKS, A.B., Mistress of Brooks Hall

Frederick A. Goetze, M.Sc., Consulting Engineer

James Hulme Canfield, LL.D., Litt.D. (Oxon.), Librarian of Columbia University

BERTHA L. ROCKWELL, Custodian, Ella Weed Memorial Reading Room

THE RELATION OF BARNARD COLLEGE TO COLUMBIA UNIVERSITY

According to the agreement made January 19, 1900, between the Trustees of Columbia College in the City of New York and Barnard College, for the purpose of incorporating Barnard College, a college for women, in the educational system of the University, it is provided:

That the President of the University shall be, ex-officio, President of Barnard College and a Trustee of Barnard College. He shall preside at the meetings of the Faculty of Barnard College and shall have general supervision and direction of the educational administration of such College as in the other schools of the University.

That the internal administration of Barnard College shall be conducted by a Dean, who shall be appointed by the President of the University, by and with the advice and consent of the Trustees of Barnard College. In the absence of the Dean, an Acting Dean may

be appointed by the President.

That Barnard College shall be represented in the University Council of Columbia University by its Dean, who shall have the right to vote in the University Council upon all questions. The Faculty of Barnard College shall consist of the President, the Dean, and all the professors on the staff of the University who give instruction in Bar-

nard College.

That Barnard College shall provide for and maintain such officers of instruction as may, from time to time, be agreed on. Such officers shall be nominated by the Dean of Barnard College, with the approval of the Trustees of Barnard College and of the President of the University, and shall be appointed and reappointed by the University according to its custom. Their standing shall be the same in all respects as that of other like officers in the University. For all services rendered in the University by officers so appointed an equivalent amount of service shall be rendered in Barnard College by other officers of the University of like grade, as may be determined from time to time, with the consent of the officers concerned, by the Dean of the College and the President of the University.

That members of the Faculty of Barnard College may be either

men or women.

That on and after July 1, 1904, all of the undergraduate instruction for women shall be given separately in Barnard College. Barnard College will assume as rapidly as possible all of the instruction for

15

women in the senior year, without regard to the time limit contained in this section, and undertakes to maintain every professorship established at its instance, so long as the services of the incumbent thereof or an equivalent therefor shall be rendered in Barnard College; and when Barnard College has adequately provided for its undergraduate work, it will, as its means allow, establish additional professorships in the University, upon foundations, providing for courses which shall be open to men and women, to the end that opportunities for higher education may be enlarged for both men and women.

That the University will accept women who have taken their first degree on the same terms as men, as students of the University, and as candidates for the degrees of Master of Arts and Doctor of Philosophy under the Faculties of Philosophy, Political Science, and Pure Science, in such courses as have been or may be designated by these Faculties, with the consent of those delivering the courses, and will

make suitable provision for the oversight of such women.

That the University will confer the degree of Bachelor of Arts or Bachelor of Science upon any student of Barnard College who shall have satisfactorily fulfilled in Barnard College the requirements of the University Statutes for that degree. The courses in Barnard College leading to the degree of Bachelor of Arts or Bachelor of Science shall be determined and administered by its own Faculty, and all examinations for admission to Barnard College and in course shall be conducted under the authority of the Faculty of Barnard College. The diploma shall be signed by the President of the University and by the Dean of Barnard College. The degrees conferred upon the graduates of Barnard College shall be maintained at all times as of equal value with the corresponding degrees conferred upon the graduates of Columbia College. The equivalency of the two degrees shall be maintained in such manner as the University Council may prescribe.

That, so long as this agreement is in force, Barnard College shall grant no degrees. It shall retain the right to grant certificates to students not candidates for a degree, and it shall exercise all other corporate rights and powers which are not delegated to the University by this agreement. But this agreement shall not be deemed a surrender by Barnard College of any powers conferred upon it by charter.

That Barnard College shall retain its separate corporate organization, and that the Trustees of Barnard College shall continue to provide for the financial support thereof,

That the library of the University shall be open to all women students of the University and of Barnard College upon the same terms as to men.

The provision made at Teachers College for students of Barnard College that wish to avail themselves of the advantage of professional training is explained in detail on page 50

Barnard College GENERAL STATEMENT

Barnard College offers two distinct liberal courses of undergraduate instruction for women, each of four years' duration, but differing widely

in aim and leading to different degrees.

Courses of Study

The literary course requires the study of Latin for entrance and also in college, embraces such general subjects as are deemed essential to a liberal education, requires a major subject equivalent to a three-hour course throughout three years, and leads to the degree of Bachelor of Arts.

The science course allows the substitution of scientific and advanced subjects in place of the entrance Latin, embraces such general courses as are considered essential to any liberal education, requires a major and two minor subjects in pure science amounting to seventy points of college work, and leads to the degree of Bachelor of Science.

A general two-years' course, not leading to a degree, is arranged to give the cultural basis in literature, languages, history, and natural science for work in certain professional schools of the University.

The University requires of all students attendance upon all stated academic exercises. Students who find that stated academic exercises are fixed for days set apart for religious observance by the church to which they belong, and who are prevented by conscientious scruples from performing their University duties on those days, are requested to make application to the appropriate University authority for equitable relief. It should be noted, however, that in case alternative opportunities for taking a given examination are statedly offered, as for instance the January, June, and September entrance examinations, such students are expected to present themselves on the day which is not set apart as a holy day. In other cases, candidates for admission should make application to the Chairman of the Committee on Admissions of Barnard College, and students already matriculated should apply to the Dean.

Academic Under the Statutes all students are admitted subject to the disciplinary power of the University.

ADMISSION

Candidates are admitted by the Committee on Admissions under the following general regulations:

Except for reasons of weight, candidates for admission to the freshman class must be at least fifteen years of age at the time of matric-

ulation and correspondingly older for admission to advanced standing. Every candidate must, before admission, present a certificate of good moral character from her last teacher, or from some properly qualified citizen. Students from other colleges or universities must bring certificates of honorable dismissal.

ADMISSION TO THE FRESHMAN CLASS

Every candidate must offer subjects amounting to fifteen (15) points. The points here represent the number of years, at the rate of five (5) periods a week, which will normally be required in the secondary school to prepare adequately for the college examination.

The candidate must offer:

	COUNTING IN POINTS
English (page 28)	3
Elementary Mathematics (page 37)	3
and in case of a candidate for the A.B.degree:	
Elementary Latin (page 36)	4
or in case of a candidate for the B. S. degree: .	
Science	2
Advanced or Intermediate subjects	2
or in case of a candidate for the general two- years' course:	
Ancient or Modern Foreign Languages History, Foreign Languages, Mathematics	4
or Science	5

The candidate may offer any of the following subjects without other restriction than that to offer an advanced subject will involve offering, either at the same time or earlier, the corresponding elementary subject:

	COUNTING IN POINTS
Elementary Greek (page 34)	3
Elementary History (See note, p. 35)	2 01 I
Drawing (page 27)	I
Music (page 39)	. 1
Intermediate French (page 31)	I
Intermediate German (page 33)	ı
Advanced English (page 30)	I
¹ Advanced Greek (page 34)	ı
¹ Advanced History (page 35)	I
¹ Advanced Latin (page 37)	ı
Advanced Mathematics (page 38)	I
Advanced Physics (page 40)	I
and in the case of candidates for the B.S.	
degree:	
Elementary Latin (See note p. 36)	2

¹ Candidates will be examined in this subject only in September or January.

The candidate may offer not more than four (4) points in all from the four subjects following:

	IN POINTS
Elementary French (page 30)	2
Elementary German (page 32)	2
¹ Italian (page 36)	2 .
Spanish (page 41)	2

The candidate for the A.B. degree may offer not more than two (2) points and a candidate for the B.S. degree must offer not less than two (2) points in all from the five subjects following:

	IN POINTS
* Botany (page 26)	I
Chemistry (page 26)	I
Elementary Physics (page 40)	I
Physiography (page 41)	I
Zoölogy (page 41)	I

ENTRANCE EXAMINATIONS

Examinations for admission to Barnard College are held each year in January, June, and September. In 1908 they will be held June

Time

15-20 and September 14-21, and in 1909, January
18-25.

In June, 1908, the entrance examinations will be conducted by the College Entrance Examination Board, of which Columbia University is a member, at Barnard College and at a large number of widely distributed points. A list of these points will be published by the Board (Post-Office Sub-Station 84, New York, N. Y.) about March 1. Requests for examinations at particular points should reach the Secretary of the Board not later than February 1.

In September, 1908, and January, 1909, the entrance examinations of Barnard College, conducted by the Columbia University Committee on Entrance Examinations, will be held only at the College.

The regulations covering candidates who are prevented by religious scruples from presence at any given series of examinations may be found in the paragraph relating to Attendance on page 16.

Every candidate for examination is required to file an application. For the examinations in June, 1908, the application must be filed with the Secretary of the College Entrance Examination Board, Post-Office Sub-Station 84, New York, N. Y. Examination Applications for examination in the United States east of the Mississippi River (also at Minneapolis, St. Louis, and other points on the Mississippi River), must be filed on or before June 1. Applications for examination elsewhere in the United States or in Canada must be filed on or before May 25; and applications for

¹ Candidates will be examined in this subject only in September or January.

examination at points outside of the United States and Canada must be filed on or before May 11. Requests for blank forms of application should be addressed to the Secretary of the Board.

A candidate for a competitive scholarship to be awarded on the basis of the June examinations must, in her application to the Secretary of the College Entrance Examination Board, mention the scholarship for which she is competing; in which case her answer books, after having been rated by the Board, will be transmitted to the Committee on Admissions of Barnard College.

For the examinations in September, 1908, and January, 1909, applications must be filed with the Registrar of Barnard College on or before September 7 and January 11, respectively. Requests for blank forms of application should be addressed to the Registrar of Barnard College.

Every application for examination in June must be accompanied by a fee of \$5 in the form of a postal order, express order, or draft on New York, to the order of the College Entrance Examination Board, for all candidates examined at points in Fee the United States and Canada, and \$15 for all candidates examined at points outside of the United States and Canada.

Every application for examination in September or in January must be accompanied either by a fee of \$5 in the form of a postal order, express order, or draft on New York, to the order of Barnard College, by a receipt from the Bursar of Barnard College for an examination fee previously paid, or by the receipt issued by the Secretary of the College Entrance Examination Board for the June examinations immediately preceding. The latter will be accepted in either September or January but not in both; and a single fee paid to the University will cover only two consecutive series of examinations, namely January and September, or September and January.

If a late application is accepted either by the College Entrance Examination Board, or by the College, a second fee of \$5 must be paid.

In every case a candidate who has paid the examination fee will be furnished with a receipt. This receipt should be carefully preserved. It must be presented by the candidate to the Supervisor in charge of the examinations which she attends as evidence that she is entitled to be admitted to the same. No candidate will be admitted to the September or January examinations upon the receipt of the College Entrance Examination Board, unless that receipt bears the certification of the Registrar of Barnard College that the candidate's application for the examinations has been filed.

An examination fee paid to the College Entrance Examination Board for admission to the June examinations does not cover the matriculation fee of Barnard College; but an entrance examination fee paid to Barnard College in January or in September covers the matriculation fee provided the candidate is admitted to the college within 29 months.

A candidate may present herself at any of the scheduled series of examinations subject to the following restrictions:

Division of (1) She may count not more than four series of ex-Examination aminations except by special consent of the Committee on Admissions of Barnard College.

(2) At the first and second series credit will be given only for such subjects or lettered (or numbered) parts of a subject, as are approved by her principal instructor.

(3) The results of an examination shall stand to her credit for

twenty-nine months, but no longer.

Candidates taking the examinations must report to the Supervisor, Schedule of in the examination room, fifteen minutes in advance Examinations of the first examination which they are to attend.

June 15-22, 1908

Monday, June 15

Mathematics, a, i, ii, (elementary algebra: to quadratics; quadratics, and beyond). History b (mediæval and modern history). History d (American history). Physics (elementary). Botany. Zoölogy.	9.30-12.30 1.30-3.30 1.30-3.30 3.45-5.45 3.45-5.45		
20010gy			
Tuesday, June 16			
Mathematics c , d (plane geometry; solid geometry)	9-12 1.30-3.30 1.30-3.30 3.45-5.45		
Wednesday, June 17			
Latin m (elementary sight translation of prose) French a (elementary French) German b (intermediate German) Spanish	10.45-12.30 1.30-3.30 3.45-5.45 3.45-5.45		
Thursday, June 18			
Latin c (Cicero) Latin a (grammar and elementary prose composition) Latin d (Virgil's Æneid, Books I–VI) French b (intermediate French)	9-11 11.15-12.30 1.30-3.30 3.45-5.45		

Friday Issue vo	
Friday, June 19 English a (reading and practice)	0-11
Latin l (prose composition)	9-11 11.15-12.30
English b (study and practice)	1.30-3.30
Chemistry	3.45-5.45
Physiography	3 · 45 - 5 · 45
Greek c (Homer's Iliad, Books I–III)	3 · 45 - 5 · 45
Music b (harmony)	$3 \cdot 45^{-5} \cdot 45$
Saturday, June 20	
Greek b (Xenophon)	9-11
Drawing	9-11
Greek a (grammar and elementary prose composition).	11.15-12.30
Mathematics e (trigonometry)	1.30-3.30
Greek g (sight translation of prose)	1.30-3.30
Greek f (prose composition)	3.45-5.15
Music a (musical appreciation)	3 · 45 - 5 · 45
September 14-21, 1908, and January 18-25, 19	09
Monday, September 14, and January 18	
Mathematics a, i, ii (elementary algebra: to quadratics;	
quadratics, and beyond)	9.30-12.30
History b (mediæval and modern history)	1.30-3.30
History d (American history)	1.30-3.30
Physics (elementary)	3 · 45 – 5 · 45
Botany	3 · 45 - 5 · 45
Zoölogy	3 · 45 - 5 · 45
Tuesday, September 15, and January 19	
Mathematics c , d (plane geometry; solid geometry)	9-12
History a (ancient history)	1.30-3.30
History c (English history)	1.30-3.30
German a (elementary German)	3 · 45 - 5 · 45
Wednesday, September 16, and January 20	
Latin m (elementary sight translation of prose)	10.45-12.30
French a (elementary French)	
German b (intermediate German)	
Spanish	3 · 45 - 5 · 45
Italian	3 · 45 - 5 · 45
Thursday Sattomber 15 and Iguages of	
Thursday, September 17, and January 21	
Latin c (Cicero)	
Latin a (grammar and elementary prose composition)	
	1.30-3.30
French b (intermediate French)	$3 \cdot 45^{-5} \cdot 45$

Friday, September 18, and January 22

English a (reading and practice)	9-11 11.15-12.30 1.30-3.30 3.45-5.45 3.45-5.45
Music b (harmony)	3 · 45 – 5 · 45
Saturday, September 19, and January 23	
Greek b (Xenophon)	9-11
Drawing	9-11.30
Greek a (grammar and elementary prose composition)	11.15-12.30
Advanced history	1.30-3.30
Mathematics e (trigonometry)	1:30-3.30
Greek g (sight translation of prose)	1.30-3.30
Greek f (prose composition)	3 · 45 - 5 · 45
Music a (musical appreciation)	3 · 45 - 5 · 45
Monday, September 21, and January 25	
Advanced English	9-12
Advanced Greek	9-12
Advanced Latin	1-4
Advanced Physics	1-4

Report of Entrance Examinations
tions

Report of Examinations

The Committee on Admissions will report to the Dean as soon as practicable after the conclusion of each series of the entrance examinations the names of those candidates who may be admitted with or without conditions and of those who must present themselves for re-examination at a later examination period.

Barnard College accepts, in lieu of its entrance examinations, no credentials of any sort except the Academic Diploma of the Regents of the State of New York, the College Entrance Diploma of the Education Department of the State of New York, and the certificates

i The credit to be given for the several counts of the Regents' Academic Diploma is determined by the Committee on Admissions. For 1908-09 every such diploma will cover the entrance requirement in Elementary English. To meet the entrance requirement in Elementary French or Elementary German, it must cover the complete two-years high-school course in these subjects. In Latin or in Greek, it must, among other things, cover specifically sight translation and prose composition. In a natural science the Regents' Academic Diploma will not be accepted unless the candidate's note-book on the required laboratory work is presented with the diploma and is approved by the examining officer of Barnard College in the department concerned.

² Candidates offering the College Entrance Diploma of the Education Department of the State of New York should observe the following regulations:

In Advanced History or Advanced Algebra neither of the three-count electives is ccepted.

of approved colleges, and these only for the subjects which they specifically cover. Except for reasons of weight such certificates are not accepted as covering subjects passed. Certificates more than twenty-nine months previous to the date in Lieu of of presentation. No certificates from preparatory schools or from preparatory departments of colleges will be accepted in lieu of entrance examinations. Candidates must take the regular entrance examinations in the subjects in which their certificates are not deemed adequate.

All certificates so offered must be in the hands of the Barnard College Committee on Admissions at least two weeks before the first day of the entrance examinations.

A student may be admitted to the freshman class on probation when the total number of points received by her in the entrance examinations amounts to eleven (11) out of the total required fifteen (15) points; but general deficiency in any one of the prescribed subjects will be regarded as disqualifying a candidate for admission.

A student admitted conditionally or by certificate will be held under probation during the first half-year of residence. By Tuesday of the week preceding the Christmas holidays, each department in which students on probation attend shall make Probation to the Dean a special report of progress in the case of every such student. The Dean will as soon as practicable after the mid-year examinations decide as to each student on probation whether she shall be admitted to full standing, have her period of probation extended, or be dropped from the roll.

The mark C, B, or A, obtained in any subject at the end of the first half-year of residence, will be regarded as removing an entrance condition in that subject, unless the condition was incurred in a part of

In Drawing, if this subject is offered, the diploma must cover both Drawing (three counts) and Advanced Drawing (three counts), and must be accompanied by a set of at least twenty drawings duly certified by the teacher.

In the natural sciences,—physics, chemistry, physiography, advanced botany and advanced zoölogy,—a note-book duly certified by the teacher must be presented with the diploma.

For admission to the A.B. course at Barnard College the Diploma of the Arts Department is required. It must cover: in Latin (advanced) Prose Composition and Prose Translation at Sight (Caesar is not accepted as satisfying any part of the requirement); in Greek, if this subject is offered as the second foreign language, five elective counts (3d year), including, besides Xenophon and Homer, (advanced) Prose Composition and Prose Translation at Sight.

For admission to the B.S. course at Barnard College the Diploma of the Science Department is necessary. It must cover a second science—preferably chemistry,—and either (1) three years of both French and German or (2) three years of either French or German and Solid Geometry and Trigonometry (five counts). In the latter case, Latin (two years), if it includes Cicero or Virgil, may be offered as the second foreign language.

For admission to the general two-years course either the Arts or the Science Diploma may be presented, provided Drawing is not included among the electives and Caesar is not offered to satisfy any part of the Latin requirement.

the subject not directly involved in the work of the college course. To remove a condition by subsequent work, a mark of at least thirty per cent. must have been obtained in an entrance examination. Any condition not so removed must be satisfied by formal examination.

No student with unremoved entrance conditions may be admitted to the sophomore class.

ADMISSION TO ADVANCED STANDING

Candidates for admission to advanced standing, either upon the basis of certificates from other colleges or on examination, must make application in writing on blanks to be obtained from the Registrar. The application must be filed with the Chairman of the Barnard College Committee on Admissions at least one week before the first day of the September or January entrance examinations, and must be accompanied in every case by (1) official statements of the candidate's record in her various college studies including entrance credits, (2) letters or other evidence showing the opinion of her instructors in regard to her scholarship and character, (3) a letter of honorable dismissal from the college which she is leaving, and (4) a catalogue or announcement of the college that she leaves in which are plainly marked every requirement for admission and every course of instruction for which she has received credit.

Every candidate for admission to advanced standing must show that she has attained proficiency in the equivalent of

1. The requirements for admission to the freshman class.

2. All the prescribed studies already pursued by the class to which she seeks admission.

3. As many elective studies as she would have pursued if she had entered the class at the beginning of the freshman year.

She may be admitted notwithstanding deficiencies in some of these studies, but will not be recommended for a degree until she shall have brought all her studies up to the point required for that degree.

The credits granted in any subject to a student admitted with advanced standing may be withdrawn or diminished in amount, if, in pursuing such subject after admission to Barnard College, the student prove that the granting of the credits was wholly or in part unwarranted by her previous work.

No applicant may enter the senior class as a candidate for a degree after October 15 in any year, and no student will receive a degree who has resided less than two full half-years at Barnard College.

(See also paragraph 11, page 48.)

Candidates for admission to the freshman class offering for entrance more than the required 15 points may be given credit toward a degree for this extra work, on a basis to be determined by the Committee on Admissions, provided that not more than 18 of the 124 points required for a degree may be gained in this way.

ADMISSION AS SPECIAL STUDENTS

Candidates for admission as special students must make application in writing at least one week before the first day of the entrance examinations in September or in January, on blanks to be obtained from the Registrar.

Special students in Barnard College are of two classes: non-matriculated and matriculated.

Non-matriculated special students must be women of mature age who wish to pursue chiefly advanced courses of special study. They may be admitted at the discretion of the Committee on Admissions without passing formal entrance examinations. They must furnish proof that they have at some time pursued the studies included in the matriculation examinations and must satisfy the requirements of the department that they desire to enter.

Non-matriculated Special Students

No courses taken by non-matriculated special students can at any time be counted by them toward a degree.

Matriculated special students are women who wish, without taking a degree, to make a serious study of some subject or group of subjects. They must pass the regular examinations for admission

to the freshman class and have full credit for fifteen (15) points of the entrance requirements. (See p. 17.) They may, therefore, in event of a change of plan, be credited Matricula ted Special Students

with such of their courses as may coincide with the courses leading to a degree.

Except for reasons of weight, satisfactory to the Committee on Admissions, no one will be received as a special student who is less than eighteen years of age, or who has, within ten months of the time of her application, either been rejected or become deficient as a regular student.

Once admitted to the college, special students will be allowed to select their own courses of study subject to the general approval of the Dean and to the particular approval, for each course selected, of the head of the department in which the course is given.

Each student is required to pursue in each half-year courses amounting to at least eight (8) points, unless excused by the Dean for reasons of special weight.

In the courses which they severally pursue all special students will be held to the observance of the same regulations as to attendance, examination, proficiency, and deficiency as regular students.

All special students will receive a formal statement as to the satisfactory completion of the work that they have taken.

DEFINITIONS OF REQUIREMENTS:

Specimens of the question papers set by Columbia University may be obtained from the Registrar upon application. The question papers of the College Entrance Examination Board are published annually in book form by Ginn & Company, Boston, Mass.

For a more detailed statement of the requirements in botany and physiography or lists of suitable laboratory experiments in chemistry and physics the reader is referred to the pamphlet of the College Entrance Examination Board containing definitions of the requirements in each subject.

BOTANY (counting one point)

The candidate should have received training by means of the laboratory method in:

The structure and the more obvious features of the life history of at least ten types among the higher seed plants chosen from the more representative families (e. g., Gramineæ, Liliaceæ, Salicaceæ, Ranuncluaceæ, Rosaceæ, Leguminosæ, Cruciferæ, Solanaceæ, Labiatæ, Compositæ). In addition to these the following types are recommended among the remaining lower groups of plants: pine, Selaginella, a fern, a moss (Polytrichum or Funaria), a leafy hepatic, Marchantia, a mildew (Microsphæra), an agaric, Vaucheria, Spirogyra, and a protophyte (preferably Sphærella).

Physiology. This work should cover the essential facts concerning irritability, photosynthesis, respiration, digestion, growth, and

reproduction.

Ecology. The natural history of plants should receive considerable attention, and the behavior of plants toward environmental factors (especially light and moisture), dissemination, cross and close pollination, and the more important structural and physiological characteristics of plant formations (hydrophytes, halophytes, mesophytes, and xerophytes) should be included.

As evidence of proper laboratory training and of satisfactory work, a note-book must be submitted. (See Submission of Note-books,

page 43.)

CHEMISTRY (counting one point)

The candidate's preparation in chemistry should include:

- a. The study of a standard text-book, to the end that the pupil may gain a comprehensive and connected view of the most important facts and laws of elementary chemistry.
- b. Instruction by lecture-table demonstrations, to be used mainly as a basis for questioning upon the general principles involved in the pupil's laboratory investigations.
- c. Individual laboratory work, comprising at least forty exercises. An indexed note-book of the experiments must be submitted. (See Submission of Note-books, page 43.)

¹ The relative value of subjects is expressed in points according to the time for adequate preparation in them; a point in the sense here used represents a course of five (5) periods weekly throughout an academic year of the preparatory school.

The following outline includes only the indispensable things which must be studied in the class-room and laboratory. The material is, for the most part, common to all elementary text-books and laboratory manuals. The order of presentation will naturally be determined by each teacher for himself.

Outline.—The chief physical and chemical characteristics, the preparation and the recognition of the following elements together with their principal compounds: oxygen, hydrogen, carbon, nitrogen, chlorine, bromine, iodine, fluorine, sulphur, phosphorus, silicon, potassium, sodium, calcium, magnesium, zinc, copper, mercury, silver, aluminum, lead, tin, iron, magnanese, chromium.

More detailed study should be confined to the italicized elements (as such) and to a restricted list of compounds such as: water, hydrochloric acid, carbon-monoxide, carbon-dioxide, oxides of nitrogen, nitric acid, ammonia, sulphur-dioxide, sulphuric acid, hydrogen sulphide, sodium-hydroxide, ammonium-hydroxide.

Attention should be given to the atmosphere (constitution and relation to animal and vegetable life), flames, acids, bases, salts, oxidation and reduction, crystallization, combining proportions by weight and volume, calculations founded on these and Boyle's and Charles's laws, symbols and nomenclature, atomic theory, atomic weights, valency (in a very elementary way), nascent state, natural grouping of the elements, solution (solvents and solubility of gases and solids and liquids, saturation), strength of acids and bases, conservation and dissipation of energy, chemical energy, electrolysis. Chemical terms should be clearly understood, and the pupil should be able to illustrate and apply the ideas they embody. The theoretical topics are not intended to form separate subjects of study, but to be taught only so far as is necessary for the correlation and explanation of the experimental facts.

DRAWING (counting one point)

The candidate's preparation in drawing should include simple geometrical, plane, and solid figures, simple pieces of machinery, the drawing of simple pieces of architectural ornament (a Greek anthemion, a design of iron scrollwork, etc.), the copying of machinery details, or the copying of still life and simple plant forms, with a fair knowledge of perspective and light and shade as applied in freehand sketching. The candidate should be able to reproduce from a flat copy with enlargement or reduction of size.

Every candidate must present at the time of and as part of the examination in drawing a set of drawings executed during one year's course in a preparatory school and within a period of two years before the time of application for admission.

These drawings should be at least twenty in number and should display the proficiency of the student in the following points:

1. Ability to sketch freehand from dictation with reasonable

accuracy and with fairly correct, steady and clean lines any simple geometrical figure or combinations of figures, straight lines, squares, and circles, polygons, spirals, or the like.

2. Ability to sketch from the object with reasonable correctness of proportion, structure, and form, geometrical models, simple vases, simple details of machinery or common objects such as ordinary household furniture and utensils.

3. Ability to sketch from the copy, enlarging or reducing its dimensions, any simple object such as a globe valve, stop-cock, or any ordinary historical ornament such as an acanthus leaf, egg and dart ornament, anthemion, tile pattern, iron scrollwork, or the like.

Correctness of proportion and accuracy in the angles and curves and structural relations of the parts of every figure or object drawn are of the highest importance, and great care should be taken in laying out the drawings in the use of construction lines and in the drawing of general masses and contour before the details are begun.

A certain proportion of shade drawing from casts may be included, but they are not required and should not form the majority of the drawings submitted.

All drawings should be of uniform size, and fastened together, not rolled.

In case the candidate has not attended a systematic course of instruction as detailed above she may submit a corresponding set of freehand drawings. (See Submission of Note-books, page 43.)

ENGLISH

Elementary (counting three points)

No applicant will be accepted in English whose work is notably defective in point of spelling, grammar, idiom, punctuation, or division into paragraphs.

a. Reading and Practice.—The form of examination will usually be the writing of a paragraph or two on each of several topics, to be chosen by the candidate from a considerable number-perhaps ten or fifteen-set before her in the examination paper. The treatment of these topics is designed to show the candidate's power of clear and accurate expression, and will call for only a general knowledge of the substance of the books. In every case knowledge of the book will be regarded as less important than the ability to write good English. In place of a part or the whole of this test, the candidate may present an exercise book, properly certified by her instructor, containing compositions or other written work done in connection with the reading of the books, and prepared in accordance with a list of directions, to be obtained by addressing the Secretary of the University. (See Submission of Note-books, page 43.) In preparation for this part of the requirement, it is important that the candidate shall have been instructed in the fundamental principles of rhetoric.

Candidates intending to take this part of the examination should read the books prescribed for the year in which they propose to submit themselves for examination in this subject.

In 1908 the books prescribed for this part of the examination are as follows:

Shakspere's Merchant of Venice and Macbeth; The Sir Roger de Coverley Papers in the Spectator; Irving's Life of Goldsmith; Coleridge's Ancient Mariner; Scott's Ivanhoe and The Lady of the Lake; Tennyson's Gareth and Lynette, Launcelot and Elaine, and The Passing of Arthur; Lowell's Vision of Sir Launfal; George Eliot's Silas Marner.

In 1909, 1910, and 1911 ten books selected from the following list, as prescribed below, are to be offered for examination:

Group I (two to be selected). Shakspere's As you Like It, Henry V, Julius Cæsar, The Merchant of Venice, Twelth Night.

Group II (one to be selected). Bacon's Essays; Bunyan's The Pilgrim's Progress, Part I; The Sir Roger de Coverley Papers in the Spectator; Franklin's Autobiography.

Group III (one to be selected). Chaucer's Prologue; Spenser's Faerie Queene (selections); Pope's The Rape of the Lock; Goldsmith's The Deserted Village; Palgrave's Golden Treasury (First Series), Books II and III, with especial attention to Dryden, Collins, Gray, Cowper, and Burns.

Group IV (two to be selected). Goldsmith's The Vicar of Wakefield; Scott's Ivanhoe; Scott's Quentin Durward; Hawthorne's The House of the Seven Gables; Thackeray's Henry Esmond; Mrs. Gaskell's Cranford; Dickens's A Tale of Two Cities; George Eliot's Silas Marner; Blackmore's Lorna Doone.

Group V (two to be selected). Irving's Sketch-Book; Lamb's Essays of Elia; De Quincey's Joan of Arc and The English Mail Coach; Carlyle's Heroes and Hero Worship; Emerson's Essays (Selected); Ruskin's Sesame and Lilies.

Group VI (two to be selected). Coleridge's The Ancient Mariner; Scott's The Lady of the Lake; Byron's Mazeppa and The Prisoner of Chillon; Palgrave's Golden Treasury (First Series), Book IV, with especial attention to Wordsworth, Keats, and Shelley; Macaulay's Lays of Ancient Rome; Poe's Poems; Lowell's The Vision of Sir Launfal; Arnold's Sohrab and Rustum; Longfellow's The Courtship of Miles Standish; Tennyson's Gareth and Lynette, Launcelot and Elaine, and The Passing of Arthur; Browning's Cavalier Tunes, The Lost Leader, How They Brought the Good News from Ghent to Aix, Evelyn Hope, Home Thoughts from Abroad, Home Thoughts from the Sea, Incident of the French Camp, The Boy and the Angel, One Word More, Hervé Riel, Pheidippides.

b. Study and Practice.—This part of the examination presupposes the thorough study of each of the works named below. The examination will be upon subject-matter, form, and structure. In addition,

the candidate may be required to answer questions involving the essentials of English grammar, and questions on the leading facts in those periods of English literary history to which the prescribed works belong.

In connection with the reading and study of the required books parallel or subsidiary reading should be encouraged, and a considerable amount of English poetry should be committed to memory. The essentials of English grammar should not be neglected in preparatory study.

The books prescribed for this part of the examination are as follows: In 1908: Shakspere's Julius Cæsar; Milton's Lycidas, Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America; Macaulay's Essay on Addison and Life of Johnson.

In 1909, 1910, and 1911: Shakspere's Macbeth; Milton's Lycidas, Comus, L'Allegro, and Il Penseroso; Burke's Speech on Conciliation with America, or Washington's Farewell Address and Webster's First Bunker Hill Oration; Macaulay's Life of Johnson, or Carlyle's Essay on Burns.

Advanced (counting one point)

The requirement in advanced English is the equivalent of English A₁-A₂, the course prescribed for freshmen. Candidates are examined in the following subjects:

r. English composition, with special attention to correctness of style and orderly arrangement of material. In preparation for this part of the examination, the student should gain a practical acquaintance with the principles of rhetoric as expounded in any good textbook.

2. English literature—the general history from the Anglo-Saxon period to the death of Tennyson, and selected works from the Eliza-

bethan period to the present day.

The selected works are: Marlowe's Edward II; Shakspere's Hamlet; Milton's Paradise Lost (Books 1, 2, 3 and 6); Dryden's Essay of Dramatic Poesy; Swift's The Battle of the Books; Pope's Iliad (Books 1, 6, 22, and 24); Goldsmith's She Stoops to Conquer; Byron's Childe Harold; Webster's Reply to Hayne; Dickens's Old Curiosity Shop.

In examination the candidate will be expected to answer questions on the history of English literature and to write short essays based on topics relating to the works prescribed. In addition, she must submit not less than ten essays of at least 500 words each. At least half but not all of these essays, should be on topics chosen from the books prescribed. (See Submission of Note-books, page 43.)

FRENCH

a. Elementary (counting two points)

THE AIM OF THE INSTRUCTION.—At the end of the elementary course the pupil should be able to pronounce French accurately, to read at

sight easy French prose, to put into French simple English sentences taken from the language of everyday life, or based upon a portion of the French text read, and to answer questions on the rudiments of the grammar, as defined below.

The Work to be Done.—During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the inflection of the regular and the more common irregular verbs, the plural of nouns, the inflection of adjectives, participles and pronouns; the use of personal pronouns, common adverbs, prepositions, and conjunctions; the order of words in the sentence, and the elementary rules of syntax; (3) abundant easy exercises, designed not only to fix in the memory the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (4) the reading of from 100 to 175 duodecimo pages of graduated texts, with constant practice in translating into French easy variations of the sentences read (the teacher giving the English), and in reproducing from memory sentences previously read; (5) writing French from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of easy modern prose in the form of stories, plays, or historical or biographical sketches; (2) constant practice, as in the previous year, in translating into French easy variations upon the texts read; (3) frequent abstracts, sometimes oral and sometimes written, of portions of the text already read; (4) writing French from dictation; (5) continued drill upon the rudiments of grammar, with constant application in the construction of sentences; (6) mastery of the forms and use of pronouns, pronominal adjectives, of all but the rare irregular verb forms, and of the simpler uses of the conditional and subjunctive.

Suitable texts for the second year are: About's Le roi des montagnes, Bruno's Le tour de la France, Daudet's easier short tales, La Bédoliere's La Mère Michel et son chat, Erckmann-Chatrian's stories, Foa's Contes biographiques and Le petit Robinson de Paris, Foncin's Le pays de France, Labiche and Martin's La poudre aux yeux and Le voyage de M. Perrichon, Legouvé and Labiche's La cigale chez les fourmis, Malot's Sans famille, Mairet's La tâche du petit Pierre, Mérimée's Colomba, extracts from Michelet, Sarcey's Le siège de Paris, Verne's stories.

b. Intermediate (counting one point)

THE AIM OF THE INSTRUCTION.—At the end of the intermediate course the pupil should be able to read at sight ordinary French prose or simple poetry, to translate into French a connected passage of English based on the text read, and to answer questions involving a more thorough knowledge of syntax than is expected in the elementary course.

THE WORK TO BE DONE.—This should comprise the reading of from

400 to 600 pages of French of ordinary difficulty, a portion to be in the dramatic form; constant practice in giving French paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; the study of a grammar of moderate completeness;

writing from dictation.

Suitable texts are: About's stories, Augier and Sandeau's Le gendre de M. Poirier, Béranger's poems, Corneille's Le Cid and Horace, Coppée's poems, Daudet's La Belle-Nivernaise, La Brète's Mon oncle et mon curé, Madame de Sévigné's letters, Hugo's Hernani and La chute, Labiche's plays, Loti's Pêcheur d'Islande, Mignet's historical writings, Molière's L'avare and Le bourgeois gentilhomme, Racine's Athalie, Andromaque, and Esther, George Sand's plays and stories, Sandeau's Mademoiselle de la Seiglière, Scribe's plays, Thierry's Récits des temps mérovingiens, Thiers's L'expédition de Bonaparte en Egypte, Vigny's La canne de jonc, Voltaire's historical writings.

GERMAN

a. Elementary (counting two points)

THE AIM OF THE INSTRUCTION.—At the end of the elementary course in German the pupil should be able to read at sight, and to translate, if called upon, by way of proving her ability to read, a passage of very easy dialogue or narrative prose, help being given upon unusual words and constructions, to put into German short English sentences taken from the language of everyday life or based upon the text given for translation, and to answer questions upon the rudiments of grammar, as defined below.

The Work to be Done.—During the first year the work should comprise: (1) careful drill upon pronunciation; (2) the memorizing and frequent repetition of easy colloquial sentences; (3) drill upon the rudiments of grammar—that is, upon the inflection of the articles, of such nouns as belong to the language of everyday life, of adjectives, pronouns, weak verbs, and the more usual strong verbs, also upon the use of the more common prepositions, the simpler uses of the modal auxiliaries, and the elementary rules of syntax and word-order; (4) abundant easy exercises designed not only to fix in mind the forms and principles of grammar, but also to cultivate readiness in the reproduction of natural forms of expression; (5) the reading of from 75 to 100 pages of graduated texts from a reader, with constant practice in translating into German easy variations upon sentences selected from the reading lesson (the teacher giving the English), and in the reproduction from memory of sentences previously read.

During the second year the work should comprise: (1) the reading of from 150 to 200 pages of literature in the form of easy stories and plays; (2) accompanying practice, as before, in the translation into German of easy variations upon the matter read, and also in the off-hand reproduction, sometimes orally and sometimes in writing, of the substance of short and easy selected passages; (3) continued drill

upon the rudiments of the grammar, directed to the ends of enabling the pupil, first, to use her knowledge with facility in the formation of sentences, and, secondly, to state her knowledge correctly in the technical language of grammar.

Stories suitable for the elementary course can be selected from the following list: Andersen's Märchen and Bilderbuch ohne Bilder; Arnold's Fritz auf Ferien; Baumbach's Die Nonna and Der Schwiegersohn; Gerstäcker's Germelshausen; Heyse's L'Arrabbiata, Das Mädchen von Treppi, and Anfang und Ende; Hillern's Höher als die Kirche; Jensen's Die braune Erica; Leander's Träumereien and Kleine Geschichten; Seidel's Märchen; Stökl's Unter dem Christbaum; Storm's Immensee and Geschichten aus der Tonne; Zschokke's Der zerbrochene Krug.

Among the shorter plays the best available are perhaps Benedix's Der Prozess, Der Weiberfeind, and Günstige Vorzeichen; Elz's Er ist nicht eifersüchtig; Wichert's An der Majorsecke; Wilhelmi's Einer muss heiraten. It is recommended, however, that not more than one of these plays be read. The narrative style should predominate. A good selection of reading matter for the second year would be Andersen's Märchen, or Bilderbuch, or Leander's Träumereien, to the extent of, say, forty pages. After that such a story as Das kalte Herz, or Der zerbrochene Krug; then Höher als die Kirche, or Immensee; next a good story by Heyse, Baumbach, or Seidel; lastly Der Prozess.

b. Intermediate (counting one point)

The Aim of the Instruction.—At the end of the intermediate course the pupil should be able to read at sight German prose of ordinary difficulty, whether recent or classical; to put into German a connected passage of simple English, paraphrased from a given text in German; to answer any grammatical questions relating to usual forms and essential principles of the language, including syntax and word-formation; and to translate and explain (so far as explanation may be necessary) a passage of classical literature taken from some text previously studied.

The Work to be Done.—The work should comprise, in addition to the elementary course, the reading of about 400 pages of moderately difficult prose and poetry, with constant practice in giving, sometimes orally and sometimes in writing, paraphrases, abstracts, or reproductions from memory of selected portions of the matter read; also grammatical drill upon the less usual strong verbs, the use of articles, cases, auxiliaries of all kinds, tenses and modes (with special reference to the infinitive and subjunctive), and likewise upon word-order and word-formation.

The intermediate course is supposed to be the elementary course, plus one year's work at the rate of not less than four recitations a week. Suitable reading matter for the third year can be selected from such works as the following: Ebner-Eschenbach's Die Freiherren von Gemperlein; Freytag's Die Journalisten and Bilder aus der deutschen

Vergangenheit—for example, Karl der Grosse, Aus den Kreuzzügen, Doktor Luther, Aus dem Staat Friedrichs des Grossen; Fouqué's Undine; Gerstäker's Irrefahrten; Goethe's Herrmann und Dorothea and Iphigenie; Heine's poems and Reisebilder; Hoffmann's Historische Erzählungen; Lessing's Minna von Barnhelm; Meyer's Gustav Adolfs Page; Moser's Der Bibliothekar; Riehl's Novellen—for example, Burg Neideck, Der Fluch der Schönheit, Der stumme Ratsherr, Das Spielmannskind; Rosegger's Waldheimat; Schiller's Der Neffe als Onkel, Der Geisterseher, Wilhelm Tell, Die Jungfrau von Orleans, Das Lied von der Glocke, Balladen; Scheffel's Der Trompeter von Säkkingen; Uhland's poems; Wildenbruch's Das edle Blut.

GREEK

Elementary (counting three points)

a. i. Grammar.

The common forms, idioms, and constructions, and the general grammatical principles of Attic Greek prose.

ii. Elementary Prose Coposition.

Translation into Greek of detached sentences to test the candidate's knowledge of grammatical constructions.

The examination in the two subjects immediately preceding will be based on the first two books of Xenophon's Anabasis.

Greek a. i. and ii. is considered a single, indivisible subject.

b. Xenophon.

The first four books of the Anabasis.

c. Homer.

The first three books of the Iliad (omitting II, 494-end) and the constructions, poetical forms, and prosody of Homer's Iliad.

f. Prose Composition.

Translation into Greek of continuous prose based on Xenophon and other Attic prose of similar difficulty.

g. Sight Translation of Prose.

Translation into English at sight, based on prose of no greater difficulty than Xenophon's Anabasis.

Advanced (counting one point)

Candidates offering Greek as an advanced subject must present the equivalent of the course known as Greek 3-4. In Homer, for which no equivalent will ordinarily be accepted, the minimum requirement will be 1600 lines in addition to the amount offered for the elementary examination. The candidate must also offer the eight orations of Lysias in Morgan's edition, or an equivalent amount of similar Greek, and in prose composition at least twenty exercises in the writing of connected narrative prose. The exercises in Part III of Allinson's Greek Prose Composition will show the grade of preparation demanded. Candidates applying for examination in this subject must designate the equivalents, if any, which they wish to offer.

HISTORY

Elementary (counting one or two points)

Note.—Each of the four divisions, a, b, c, and d, counts one (1) point. Candidates may offer any one (1) or any two (2) of the divisions without restriction.

- a. Ancient history, including a brief introductory study of the Oriental peoples, and early mediæval history to the death of Charlemagne, with due reference to art, literature, and government.
- b. Mediæval and modern history, from the death of Charlemagne to the present time, with due reference to the growth of the state-system.
- c. English history, with due reference to social and political development.
 - d. American history, with the elements of civil government.

On examination a candidate must show such general knowledge of the subject in each division offered as may be acquired from the study of an accurate text-book of not less than three hundred pages. Since the questions will be so framed as to require comparison and the use of judgment rather than mere exercise of memory on the part of the pupil, it is recommended that the teacher prescribe a course of supplementary reading of not less than three hundred pages dealing with the more important periods and events in each division offered. Geographical knowledge will be tested by requiring the location of places, boundaries and movements on an outline map.

Advanced (counting one point)

The requirement in advanced history is intended to be an equivalent for History A1-A2—the course prescribed for freshmen in Barnard College. The work done at school, therefore, should be substantially identical with that course, the nature of which is explained in a syllabus that may be obtained at the University Bookstore. Those candidates who desire to offer history as an advanced subject must have offered for elementary history either a and b or c and d and must present themselves for examination upon the two divisions which they did not offer as an elementary subject. The examination will presuppose superior ability on the part of the candidate to understand the significance of historical events, movements, or tendencies, to discern similarities and contrasts, and to combine results. Especial care should be exercised, therefore, in the selection of the supplementary reading on the more important periods and events in each of the two divisions.

As further evidence of proficiency, satisfactory written work must be presented in the form of a note-book, or bound collection of notes (see Submission of Note-books, p. 43), which must contain not less than five thousand words on each division offered, and must show practice in at least three of the following exercises:

(a) Notes and digests of reading outside of the text-books.

- (b) Written recitations requiring the use of judgment, and the application to new questions of knowledge already gained.
- (c) Written parallels between historical characters, events, or periods.
- (d) Brief studies of topics limited in scope, prepared outside the class-room and illustrated by some reference to contemporary material.
- (e) Historical maps or charts showing explorations, migrations, conquests, territorial changes, or social phenomena.

ITALIAN

Elementary (counting two points)

The Aim of the Instruction.—At the end of the course the pupil should be able to pronounce Italian accurately, to read at sight easy Italian prose, to put into Italian simple English sentences taken from the language of everyday life, or based upon a portion of the Italian text read, and to answer correctly questions on the rudiments of the grammar, as defined below.

The Work to be Done.—During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax; (3) abundant exercises illustrating the principles of grammar; (4) the reading and accurate rendering into good English of from 100 to 175 duodecimo pages of graduated texts, with translation into Italian of easy variations of the sentences read; (5) writing Italian from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of modern prose from different authors and of easy poetry; (2) practice in translating Italian into English, and English variations of the text into Italian; (3) continued study of the elements of grammar and of syntax; (4) mastery of all but the rare irregular verb-forms and of the simpler uses of the moods and tenses; (5) writing Italian from dictation.

Suitable texts for the second year are: E. DeAmicis' Cuore; G. Giacosa's Acquazzoni in montagna; P. Zambri's Il caporale di settimana; G. Gozzi's Poesie e prosce, scelte da A. Pippi; G. C. Abba's Da Quarto al Volturno; Guido Zalorsi's Guardare e pensare; S. Zarira's Il Signor Io; A. Stoppani's Il bel paese.

LATIN

Elementary (counting four points)

Note.—Candidates for admission to the A.B. course must offer a, c, d, l, and m to secure the four (4) prescribed points. Candidates for admission to the B.S. Course may offer a and either c or d to obtain two (2) points of credit.

a. i. Grammar.

The inflections; the simpler rules for composition and deriva-

tion of words; syntax of cases and verbs; structure of the sentence in general, with particular regard to relative and conditional sentences, indirect discourse, and the subjunctive.

ii. Elementary Prose Composition.

Translation into Latin of detached sentences and very easy, continuous prose based upon Cæsar and Cicero.

Latin a. i. and ii. is considered a single, indivisible subject.

c. Cicero.

Any six orations from the following list, but preferably the first six mentioned:

The four orations against Catiline, Archias, and the Manilian Law, Marcellus, Roscius, Milo, Sestius, Ligarius, the Fourteenth Phillipic.

d. Virgil.

The first six books of the Æneid, and so much of prosody as relates to accent, versification in general, and the dactylic hexameter.

l. Prose Composition.

Translation into Latin of continuous prose of moderate difficulty based on Cicero.

m. Elementary Sight Translation of Prose.

Translation into English at sight, based exclusively on prose of no greater difficulty than the easier parts of Cicero's orations.

Advanced (counting one point)

Candidates offering Latin as an advanced subject must present the equivalent of the course prescribed for freshmen. In Horace, for which no equivalent will ordinarily be accepted, the minimum requirement will be the first and third books of the Odes, with a satisfactory knowledge of the prosody. The candidate must also offer the twenty-first book of Livy entire, and chapters 41–53, inclusive, of the twenty-second book, and in prose composition twenty exercises from Part I of Gildersleeve and Lodge's Prose Composition.

Candidates applying for examination in this subject must designate the equivalents, if any, which they wish to offer.

MATHEMATICS

Elementary (counting three points)

a. Elementary algebra.

i. The four fundamental operations for rational algebraic expressions; factoring, determination of highest common factor and lowest common multiple by factoring; fractions, including complex fractions, ratio and proportion; linear equations, both numerical and literal, containing one or more unknown quantities; problems depending on linear equations; radicals, including the extraction of the square root of polynomials and of numbers; exponents, including the fractional and negative.

ii. Quadratic equations, both numerical and literal; simple cases of equations with one or more unknown quantities, that can be solved by the methods of linear or quadratic equations; problems depending upon quadratic equations; the binomial theorem for positive integral exponents; the formulas for the nth term and the sum of the terms of arithmetic and geometric progressions, with applications.

It is assumed that pupils will be required throughout the course to solve numerous problems which involve putting questions into equations. Some of these problems should be chosen from mensuration, from physics, and from commercial life. The use of graphical methods and illustrations, particularly in connection with the solution of equations, is also expected.

c. Plane geometry.

The usual theorems and constructions of good text-books, including the general properties of plane rectilinear figures; the circle and the measurement of angles; similar polygons; areas; regular polygons, and the measurement of the circle.

The solution of numerous original exercises, including loci problems.

Applications to the mensuration of lines and plane surfaces.

Advanced (counting one point)

d. Solid geometry.

The usual theorems and constructions of good text-books; including the relations of planes and lines in space; the properties and measurements of prisms, pyramids, cylinders, and cones; the sphere and the spherical triangle.

The solution of numerous original exercises, including loci problems; applications to the mensuration of surfaces and solids.

e. Trigonometry.

Definitions and relations of the six trigonometric functions as ratios; circular measurement of angles.

Proofs of principal formulas, in particular for the sine, cosine, and tangent of the sum and the difference of two angles, of the double angle and the half angle, the product expressions for the sum or the difference of two sines or of two cosines, etc.; the transformation of trigonometric expressions by means of these formulas.

Solution of trigonometric equations of a simple character.

Theory and use of logarithms (without the introduction of work involving infinite series).

The solution of right and oblique triangles, and practical applications, including the solution of right spherical traingles.

MUSIC (counting one point)

The candidate may offer either a or b.

a. Musical Appreciation (counting one point)

The candidate is expected to have:

- I. A general knowledge of the principal musical forms—song, classic, dance, fugue, sonata (all movements), symphony—and of their historical development;
- 2. A general knowledge of the lives and environment of at least ten composers, including Bach, Mozart, Beethoven, Schubert, Chopin, and five of the following: Purcell, Handel, Gluck, Haydn, Cherubini, Weber, Rossini, Glinka, Mendelssohn, Schumann, Wagner, Verdi;
- 3.1 Familiarity with certain designated works. The works set for 1908 and 1909 are:

Bach: Prelude I and Fugue I from Well-Tempered

Clavichord

Gavotte from Sixth Violoncello Suite.

Handel: Air with Variations ("The Harmonious Black-

smith").

Haydn: Largo from String Quartet (op. 74, No. 3).

Mozart: Overture to "The Magic Flute."

Symphony in G Minor (entire).

Beethoven: Sonata Pathétique (op. 13, entire).

Larghetto from Second Symphony.

Allegro con Brio from Fifth Symphony.

Weber: Overture to "Der Freischütz."

Schubert: Moment Musical in F Minor (op. 94, No. 3).

Song, "The Erl-King."

Song, "Hark, Hark, the Lark."

Mendelssohn: Scherzo from "Midsummer Night's Dream."

"Spinning Song" (op. 67, No. 4).

Chopin: Polonaise (op. 40, No. 1).

Nocturne (op. 37, No. 2.).

Schumann: "Aufschwung" (op. 12, No. 2).

Song, "Im wunderschönen Monat Mai."

Wagner: Overture to "Tannhäuser."

Siegfried's Funeral March, from "Götterdämmer-

ung."

In the examination in 3 the candidate will be expected to identify characteristic portions of the works set, when played by the examiner; and to give intelligent information concerning the form and character of the works themselves. The test will not require ability to perform nor to read from printed music.

¹ The examination in 3 will be held only in September and January, and will be open only to candidates who have passed the examinations in 1 and 2.

b. Harmony (counting one point)

The candidate should have acquired:

1. The ability to harmonize, in four vocal parts, simple melodies of not fewer than eight measures, in soprano or in bass—these melodies will require a knowledge of triads and inversions, of diatonic seventh chords and inversions, in the major and minor modes; and of modulation, transient or complete, to nearly-related keys;

2. Analytical knowledge of ninth chords, all non-harmonic tones, and altered chords (including augmented chords). [Students are

encouraged to apply this knowledge in their harmonization.]

It is urgently recommended that systematic ear-training (as to interval, melody, and chord) be a part of the preparation for this examination. Simple exercises in harmonization at the pianoforte are recommended. The students will be expected to have a full knowledge of the rudiments of music, scales, intervals, and staffnotation, including the terms and expression-marks in common use.

PHYSICS

Elementary (counting one point)

The candidate's preparation in physics should include:

a. The study of a standard text-book, supplemented by the use of many varied numerical problems, to the end that the pupil may gain a comprehensive and connected view of the most important facts and laws in elementary physics.

b. Instruction by lecture-table demonstrations, to be used mainly as a basis for questioning upon the general principles involved in the

pupil's laboratory investigations.

c. Individual laboratory work, comprising at least thirty-five exercises distributed about as follows: mechanics 13, sound 3, heat 5, light 6, electricity 8. An indexed note-book of the experiments must be submitted. (See Submission of Note-books, page 43.)

Advanced (counting one point)

Candidates offering physics as an advanced subject must have studied physics for a full year after satisfactorily completing the elementary requirement, and must present two note-books, the one being an outline of the class-room work and the other a record of laboratory experiments performed by the candidate. (See Submission of Note-books, page 43.) The class-room work must be devoted to a more thorough and extensive study of the subjects previously covered in a general way; in its scope it must correspond to the course known as Physics 11–12.

The laboratory work must consist of at least thirty experiments on the subjects discussed in the class-room work. The experiments should be of a more advanced grade than those designed for the elementary requirement.

PHYSIOGRAPHY (counting one point)

Note,—This is identical with the subject called Geography by the College Entrance Examination Board.

The candidate's preparation in physiography should include the study of one of the modern text-books by Davis, Tarr, Dryer, or Gilbert and Brigham, together with an approved laboratory and field course of at least forty exercises actually performed by the candidate. Each division of the subject should receive approximately the same proportion of attention in the laboratory as in the class-work. It is suggested that the exercises be divided somewhat as follows: Earth as a Globe, 5; Ocean, 5; Atmosphere, 12; Land, 18. An indexed notebook containing the record of these exercises must be submitted. (See Submission of Note-books, page 43.)

SPANISH (counting two points)

THE AIM OF THE INSTRUCTION.—At the end of the course the pupil should be able to pronounce Spanish accurately, to read at sight easy Spanish prose, to put into Spanish simple English sentences taken from the language of everyday life, or based upon a portion of the Spanish text read, and to answer questions on the rudiments of the grammar, as defined below.

The Work to be Done.—During the first year the work should comprise: (1) careful drill in pronunciation; (2) the rudiments of grammar, including the conjugation of the regular and the more common irregular verbs, the inflection of nouns, adjectives, and pronouns, and the elementary rules of syntax; (3) exercises containing illustrations of the principles of grammar; (4) the reading and accurate rendering into good English of from 100 to 175 duodecimo pages of graduated texts, with translation into Spanish of easy variations of the sentences read; (5) writing Spanish from dictation.

During the second year the work should comprise: (1) the reading of from 250 to 400 pages of modern prose from different authors; (2) practice in translating Spanish into English, and English variations of the text into Spanish; (3) continued study of the elements of grammar and syntax; (4) mastery of all but the rare irregular verb-forms and of the simpler uses of the moods and tenses; (5) writing Spanish from dictation.

Suitable texts for the second year are: Valera's El pájaro verde; Alarcón's El final de Norma, El capitan Veneno; Valdès's José; Galdós's Doña Perfecta; Marianela; Padre Isla's version of Gil Blas; Carrion and Aza's Zaragüeta.

ZOÖLOGY (counting one point)

The following outline includes the principles of zoölogy which are indispensable to a general survey of the science. It is planned for a

full year's course. It is not intended to indicate order of study of the topics—this must be left to the teacher and the text-book.

I. The general natural history—including general external structure in relation to adaptations, life histories, geographical range, relations to other plants and animals, and economic relations—of common vertebrates and invertebrates so far as representatives of these groups are obtainable in the locality where the course is given. The types suggested are a mammal, bird, lizard, snake, turtle, newt, frog, dogfish or shark, bony fish, clam, snail, starfish, earthworm, planarian, hydra, sea-anemone, paramœcium. In the case of arthropods, pupils should become familiar with common crustaceans, spiders, myriapods, and insects representing at least five orders. Actual examination of common animals with reference to the above points should be supplemented by reading giving natural-history information.

It is not expected that there will be time for making extensive note-books on the natural-history work; rather will the work in this line take the form of laboratory demonstrations. So far as time permits, drawings and notes should be made. The note-book mentioned below should contain at least drawings on the external structure of four animals not studied under Section 3, preferably two insects, a mollusk, and a second vertebrate.

- 2. The classification of animals into phyla and leading classes (except the modern subdivisions of the worms) and the great characteristics of these groups—in the case of insects and vertebrates the characteristics of the prominent orders. The teaching of classification should be by practical work so as to train the pupil to recognize animals and to point out the chief taxonomic characteristics. The meaning of species, genera, and larger groups should be developed by constructive practical work with representatives of insect or vertebrate orders.
- 3. The general plan of external and internal structure, not the anatomical minutiæ, of one vertebrate (preferably frog or fish) in general comparison with human body; an arthropod (preferably a decapod); an annelid (earthworm or Nereis); a cœlenterate (hydroid, hydra or sea-anemone); a protozoön (a ciliate, and amœba when possible). In place of any of above types not locally available there may be substituted a second vertebrate, an insect, a mollusk, or an echinoderm. Tissues, the study of which is recommended as optional, should be examined first with the unaided eye, in such a structure as a frog's leg, and then with a miscroscope demonstrate the relations of cells and intercellular substance in epithelium and cartilage; and, if possible, in other tissues. The functions of the chief tissues and their positions in the body of a vertebrate should be pointed out.
- 4. (a) The general physiology of above types, involving the essentials of digestion, absorption, circulation (respiration), cell-metabo-

¹ Topics marked "optional" are regarded as desirable for the best high-school zoology, but will not be required in examinations.

lism, secretion, excretion, and nervous functions. This should apply comparatively the essentials of elementary work in human physiology. Demonstrations and experiments, such as are suggested in high-school text-books on human physiology, should be introduced, or recalled if not previously well presented in elementary physiology, in connection with discussion of the chief functions. As far as practicable structure and function should be studied together.

- (b) Comparison of the general life-processes in animals and plants (in connection with botany if zoölogy is first studied).
- 5. The very general features of asexual reproduction of a protozoön (preferably Paramæcium); alteration of generations in hydroids; reproduction and regenerations of Hydra; the very general external features of embryological development in a fish or frog; and (optional) the general cellular nature (not centrosomes and the like) of germcells, fertilization and cell-division in developing eggs should, as far as possible, be demonstrated and briefly described. Also, the most interesting features of development should be pointed out in the case of other animals studied.
- 6. The prominent evidence of relationship, suggesting evolution, within such groups as the decapods, the insects, and the vertebrates should be demonstrated. A few facts indicating the struggle for existence, adaptation to environment, variations of individuals, and man's selective influence should be pointed out; but the factors of evolution and the discussion of its theories should not be attempted.
- 7. (Optional) Some leading facts regarding the epoch-making discoveries of biological history and the careers of such eminent naturalists as Darwin, Huxley, Pasteur, and Agassiz should be presented.

The above outline of a course in general zoölogy should be developed on the basis of a course of laboratory study guided by definite directions. This should be supplemented by the careful reading of at least one modern elementary text-book in general zoölogy. At least two thirds of the time should be devoted to the practical studies of the laboratory. If good nature-studies have not preceded the course in high-school zoölogy, pupils should be encouraged to do supplementary work in the line of natural history. A note-book with carefully labelled outline drawings of the chief structures studied anatomically (Section 3), and the drawings mentioned under natural history (Section 1), and with notes on demonstrations and in explanation of drawings, with dates and an index, must be submitted. It will be counted as one third of the examination. (See Submission of note-books, below.)

SUBMISSION OF NOTE-BOOKS, DRAWINGS, ETC.

All work submitted must be duly certified to in ink by the teacher in the following form:

Drawings should bear a similar certification, or, in case of work not done under instruction, should be accompanied by the candidate's own signed declaration.

All note-books, unless otherwise specified, should be submitted at the time of examination. Candidates desiring their return should apply after the June examinations to the Secretary of the College Entrance Examination Board; after the September and January examinations to the Secretary of the University.

English exercise books, submitted in lieu of examination, advanced English essays, or advanced history and advanced physics note-books should be sent to the Secretary of the University at least two weeks before the examinations begin. Within ten days the candidate will be informed whether or not the work submitted has been accepted. English exercise books will not be returned to the writers.

REGISTRATION AND ENROLMENT

All properly qualified students, with the exception of those classed as non-matriculated special students (see p. 25) may matriculate at Barnard College either as candidates for a degree or as special students who are permitted to attend such courses as they are qualified to take but who are not enrolled as candidates for a degree.

Before attending any academic exercise every student must comply with the regulations in regard to registration and payment of fees.

Registration She must present herself in person to furnish the information necessary for the College records.

Every new student, must also at the time of registration file a statement of the courses which the Dean has authorized her to pursue. Students already in College are required to give notice of their choice of elective courses for the ensuing year to the Dean, on or before Friday, May 1, 1908. Proper blanks for this purpose will be provided by the Registrar's Office. Students should not confuse the filing of elective blanks with registration.

The office of the Registrar will be open for registration from Wednesday, September 16, to Tuesday, September 22, 1908, and on Saturday morning January 30, 1909. New students may register also on the day following each of these periods.

Students registering later must pay an additional fee of \$5. They may, however, if unable through no fault of their own to complete their registration, file a provisonal statement within the statutory

FEES 45

period. Credit for attendance will date from the first day of each half-year and students will be held strictly accountable for absences incurred owing to late registration.

Every student who holds a scholarship must report at the office of the Registrar not later than the first day of each half-year and obtain a scholarship certificate signed by the Dean. This certificate must be handed to the Bursar at the time of registration.

The Dean may for reasons of weight grant a leave of absence to a student in good standing.

Leave of Absence

An honorable discharge will always be granted by the Dean to any student of good standing; but no student un-Honorable der twenty-one years of age, will be entitled to a discharge without submitting the written assent of her parents or guardian.

GENERAL STATEMENT REGARDING FEES AND THE REGULA-TIONS GOVERNING THEIR PAYMENT

All fees are payable in advance at the Bursar's Office. Every student who fails to register within the limits of time fixed by the regulations of the University shall be permitted to register only with the consent of the Dean, and by the payment of an additional fee of \$5. Students who enter late are required to pay the full charge for tuition for the half-year in which they register.

For an examination or any single series of examinations taken at any other time than at the conclusion of a course actually attended a fee of \$5 is charged.

The registration or matriculation fee must be paid at the time of entrance before an official record of a student's attendance can be noted. The annual fees for all students are payable in equal instalments on or before the second Wednesday of each half-year.

Checks should be made payable to the order of Barnard College, and addressed to the office of the Bursar.

Students are requested in cases of withdrawal from the College to notify the Registrar in writing without delay. No application for a return of fees can be considered unless such notice is given.

Withdrawal

FEES

For Matriculation or Registration	\$5	00
For late registration (see p. 44)	5	00
For tuition, payable at the beginning of each half-year	75	00
Students not candidates for a degree are charged at the rate of \$7.50 a half-year for each hour of attendance per week on lectures or recitations, with a maximum fee of		

\$75 for each half-year. If the entire fee is less than \$100.00 the whole must be paid upon registration. In estimating a fee in laboratory work, two hours are counted as one.		
For examination, payable in each case before the examination is held:		
For entrance (see p. 19)	\$5	
course actually attended	5 15	00
For laboratory work		
Botany (Courses 51, 52, 53, 54, 55, 56), each course (Courses 151, 152, 153, 154, 156, 158, 159, 160,	I	25
161, 162), each course	2	50
Chemistry (Courses 5, 6), each course		50
" (Courses 63, 64), each course		00
" (Courses 43, 44, 105, 106, 145, 146), each course,		00
Zoölogy (Courses 1a, 2a, 1b, 2b), each course		50
Should Course 1b be taken in connection with Course 1a, or Course 2b be taken in connection with Course 2a, or Course 102, the one fee covers both courses.	2	50
Zoölogy (Courses 4, 5), each course	т	25
" (Courses 101, 102, 151, 152, 153, 154), each course		50
For the use of the gymnasium	7	00
DORMITORY FEES		
Deposit	\$15	00
Desail	225	00
	223	
Payable in two equal instalments in advance, on or before taking possession of room, and on February 1.	,	
Rent		
Payable in two equal instalments in advance, on or before	tak	ing
possession of room, and on February 1.		
Single rooms		
Two-room suites (for one person)		
Three-room suites (for two persons) 440-	500	00
Private bath (for one, two or three persons)	75	00

ESTIMATED NECESSARY EXPENSES

Board, \$9 to \$17 a week.

Matriculation fee, \$5.

Annual tuition fee, \$150.

Gynmasium fee, \$7.

Text-books, from \$10 to \$20 each year.

Final examination for the degree, \$15.

The total necessary expenses for a student for the academic year are believed to average about \$18 a week.

RESIDENCE HALL

Brooks Hall, the residence hall for Barnard College students, will open on Monday, September 21, 1908, and will close on Saturday June 12, 1909.

Full information in regard to the situation and cost of rooms, the advance deposit, the charge for electric light and the residence scholarships is published in a separate pamphlet, to be had on application to the Secretary of the College, or to the Mistress of Brooks Hall, Barnard College, New York City. For the dormitory fees see p. 46.

The post-office address for residents is Brooks Hall, 607 West 116th Street, New York, N. Y.

THE PROGRAM OF STUDIES

Upon completion of a curriculum arranged on one of the plans to be described below (pp. 48-50), the student is recommended by the Faculty of Barnard College for the degree of Bachelor of Arts or Bachelor of Science.

The principles of the program of studies are as follows:

- 1. The requirement for graduation is 124 points, the term point signifying the satisfactory completion of work requiring attendance at class one hour or in the laboratory two hours a week for one half-year.
- 2. Studies are either prescribed, *i. e.*, obligatory upon all candidates for a degree; or elective, *i. e.*, to be taken, with certain restrictions, at the pleasure of the student.
- 3. Prescribed studies, with the exception of Economics A, must be taken as far as practicable during the first two years of residence; and subjects taken in college which are continuations of subjects offered at entrance must be taken as far as possible in the first year.
- 4. No other courses than those specified in the Announcement may be taken except by students qualified to pursue them with advantage, and with the consent of the Dean.
- 5. Students may not elect less than 12 or more than 16 points of work in any half-year without the consent of the Dean.
- 6. No credit will be given for a one-hour course, unless it is taken in connection with and as a supplement to a cognate course.
- 7. No more than four hours of work, exclusive of laboratory work, may be taken on the same day.

8. Students are required to take a major subject of 18 points in

one department.

9. Admission to courses depends upon completion of the prerequisities as stated for each course separately. Where no prerequisite is stated the course may be taken and counted for a degree by any student of the College, subject to restrictions noted in the Announcement.

10. To be recommended for a degree, a student must have made at least 84 points in actual college residence, and of these at least 24 in Barnard College. The Faculty has power to suspend this rule in individual cases; but is forbidden by a Statute of the University from granting a degree to any person who has not been a member of the

University for a full academic year, i. e., two half-years.

vithin six years from the time of her first matriculation as a freshman in college, whether at Barnard or elsewhere; within four and a half years from similar matriculation as a sophomore; within three years from similar matriculation as a junior; and within one and a half years from matriculation as a senior. If the candidate fails to satisfy the requirements within the time here specified, she is to lose credit for all the points gained by her toward the degree, unless, in individual cases, the Faculty shall otherwise direct.

12. No extension courses, taken at Columbia or elsewhere, may be

credited toward a degree.

13. Change of electives will be allowed by the Dean, for reasons of weight stated in writing, not earlier than two weeks before or later

than three weeks after the opening of each half-year.

Before final choice of elective studies, all students should consult the Dean, and, in case of any doubt, the instructors in charge of particular courses as well. Electives must be chosen on some consistent plan. Conflicts between courses falling at the same hours are to be avoided by careful study of the Scheme of Attendance at the end of this volume which has been drawn up with a view to making possible for every one the selection of a reasonable number of harmonious elective courses that shall not conflict in hours with each other or with prescribed courses. It often happens that some of the courses of one department form valuable supplements to certain courses of another, so that combinations of work under two or more departments are very desirable. In all such cases the best selections can be made only after consultation with officers of one or more of the departments concerned. This applies particularly to the major subject of 18 points.

I THE PROGRAM OF STUDIES FOR THE DEGREE OF BACHELOR OF ARTS

Unless their equivalents have been offered for admission the following courses are prescribed.

English A	. 6	points
English B	6	"
French A and German A	12	4.6
History A	6	6.6
Latin A or B	. 6	6.6
Mathematics A	6	4.4
Philosophy A	6	6 6
Physical Education A and B	4	6.6
Economics A	3	6.6
Chemistry 5-6 or Physics 11-12	6	4 6
Botany, Chemistry, Geology, Physics, Experimental Psychology, or Zoölogy; two half-year courses in addition		
to the foregoing requirements in Physics or Chemistry.	6	4.6
Major subject of	18	6.6
Free electives to complete the total of		6.6
II THE PROGRAM OF STUDIES FOR THE DEGREE OF BACHELOR OF SCIENCE		•
Unless their equivalents have been offered for admission the following courses are prescribed:		
English A	6	points
English B	6	"
French A and German A	12	4.6
History A	6	6.6
Mathematics A	6	4.6
Philosophy A	6	6 6
Physical Education A and B	4	6.6
Grouped work in Astronomy, Botany, Chemistry, Geog-	7	
raphy, Geology, Mineralogy, Physics, Experimental		
Psychology, and Zoölogy, amounting to a total of at		
least	70	6.6
(Of these 70 points at least 28 points shall be taken in a	•	
major subject; at least 12 points in an allied minor		
subject, and at least 12 points in a diverse minor.)		
Free electives to complete the total of	124	6.6
III GENERAL TWO-YEARS' COURSE, NOT LEADING TO A DE	GRE	E
This general course is specially arranged to furnish the	col	legiate
foundation for professional work at Teachers College. It		
64 points of work and includes the following prescribed cou		
their equivalents have been offered for admission:		
English A or a more advanced course in rhetoric	6	points
English Literature: two half-year courses4		"
French, German, Italian, Spanish: two half-year courses		
in each of two modern languages, perferably French		
and German	12	6.6
History A or a more advanced course in history	6	6.6
Physical Education A and B	4	6.6

With the consent of the Dean of Barnard College and the Dean of Teachers College a student who has satisfactorily completed 64 points of work in Barnard College, including the courses listed above, may transfer, without examination, to the professional curriculum of Teachers College and become a candidate for a Teachers College diploma and the degree of Bachelor of Science in Education.

In consequence of the agreement on the part of Barnard College to provide the collegiate courses required by Teachers College for admission to its professional curriculum, Teachers College has withdrawn its collegiate curriculum.

IV OPTIONS IN THE PROFESSIONAL SCHOOLS FOR CANDIDATES FOR A BARNARD COLLEGE DEGREE

A student may plan her work in such a way as to earn a professional diploma from Teachers College at the same time as her academic degree from Barnard College. With the permission of the Dean of Barnard College and the Dean of Teachers College she may transfer to Teachers College at the end of her junior year under the following provisions. A candidate for the degree of Bachelor of Arts must have completed 94 points of work in Barnard College, comprising all of the required courses, including a major subject of at least 18 points and Education A. A candidate for the degree of Bachelor of Science must have completed 94 points of work at Barnard College, comprising all of the specifically prescribed courses and of the grouped work a major subject of at least 28 points with an allied minor subject of 12 points and Education A.

On receipt of a statement from the Faculty of Teachers College that a student so transferred has satisfactorily completed the requirements for the bachelor's diploma in Teachers College, the student will be recommended by the Faculty of Barnard College for the degree of Bachelor of Arts or Bachelor of Science, provided she shall have fulfilled the requirements for either of those degrees as laid down in the Announcement of Barnard College.

For full details regarding the major subjects in teaching, their requirements and prerequisites in collegiate work, and the most advantageous division of work in education, the student is referred to the current Announcement of Teachers College.

GENERAL REGULATIONS REGARDING EXAMINATIONS IN COURSE, CREDIT, AND ADVANCEMENT

Two examinations are held every year, one in January and the other in May. These are the only stated examinations. In 1909 the mid-year examinations begin on Wednesday, January 20, the final examinations for candidates for graduation on Monday, May 10, and for all other students on Thursday, May 27.

No freshman, sophomore, junior, or special student absent from more than one-tenth of the exercises in any course during a single half-year, shall be entitled to attend the stated examination in that course. Each instance of tardiness shall be counted as half an absence.

Debars

Should a freshman, sophomore, junior, or special student not exceed the limit of absence allowed, no explanation of any of her absences is required; should she, however, exceed the limit allowed in any course, she shall be debarred from the stated examination in that course, and may attend it only by consent of the Dean, after giving written explanation to her of every absence.

All freshmen, sophomores, juniors, and special students are required to keep an account of their absences, and any satisfactory explanation of them must be from records made at the time of their occurrence, and for dates noted by the student herself and not obtained by her from the instructor.

For any examination or any single series of examinations taken at any other time than at the conclusion of a course actually attended a fee of \$5 is charged.

Special delinquent examinations for deficient and debarred students are held for all classes within the two weeks im- Delinquent mediately preceding the opening of the College in the fall; Examinaand in addition, for members of the senior class only, tions before the regular final examinations in May.

At the close of every half-year, and after the stated examination has been held, each officer of instruction shall report to the Dean on the work of all the students in his several courses, classifying them in five grades, namely, A, B, C, D, F, according as their work in the course has been excellent, good, fair, poor, or a failure.

A student who receives a mark of F in any prescribed course must repeat that course. A student who receives a mark of F in any course not prescribed may present herself for re-examination at the time fixed for the delinquent examinations; on passing such examination she shall receive a mark of D only. In either case, however, if the mark of F was given by reason of absence from examination resulting from illness or other unavoidable cause, she may be marked without regard to this foregoing rule.

At the end of every half-year, when all the reports are filed in the Registrar's Office, additional credit for high standing is given as follows:

The mark A in courses aggregating six points of work (no Additional Credit for one point of extra credit, provided she has not fallen below the mark B in any of the courses pursued by Standing her during the half-year.

Any student who is credited with 94 points (including all prescribed work) may receive one point of extra credit for each of two courses chosen from among those offered by any single department as counting toward a higher degree, provided the quality of her work in such course be tested by an essay for which a mark of A or B is given, in addition to the stated examinations. No student may receive more than one point of extra credit in one half-year under the terms of this rule.

No student may be advanced from the freshman to the sophomore class until she shall (a) have satisfied all the requirements for entrance, and (b) have not less than 20 points to her credit.

Advancement

No student may be advanced from the sophomore to the junior class until she shall have not less than 52

points to her credit.

No student may be advanced from the junior to the senior class until she shall have accomplished all the studies of the course specifically required in the first three years, and have not less than 94 points to her credit.

No student may count for promotion from any class to the next higher class more than six (6) points of D work. Only twenty-four (24) points of D work can be counted for a degree. Of several courses in which a student is marked D she may choose the ones to be counted. In all cases the requirements as to prerequisites must be completed before the beginning of the academic year.

A student dropped from the roll of her class will not be permitted to attend any of the exercises of the said class without the consent of the Dean, given for reasons of weight; but she may enter the next succeeding class and pursue the course or courses in which her deficiency exists, or, in case of elective courses and with the consent of the Dean, other course or courses equivalent thereto in time, and present herself for examination in such course or courses with that class. No student dropped from the roll of her class under the provisions of this section will be accepted as a special student.

Should a student fail of advancement in two successive years, she shall be dropped from the roll of the College, unless, for reasons of weight, the Dean shall otherwise determine. No student dropped

¹ I.e., Master of Arts or Doctor of Philosophy. Such courses are those offered under the Faculty of Political Science, the Faculty of Philosophy, or the Faculty of Pure Science primarily for graduate students, but open also to advanced undergraduates.

from the roll of the College under the provisions of this section will be accepted as a special student.

SCHOLARSHIPS

There are altogether forty-one scholarships and three special funds for the benefit of students who need financial aid. The value of each of these scholarships, unless otherwise stated, is \$150 annually, which sum is applicable to the fees of the year.

Under certain circumstances those scholarships known as Student Scholarships may be divided between two applicants.

The scholarships are of two sorts, competitive and non-competitive. The former are awarded for excellence in entrance examinations on the nomination of the Committee on Admissions. The latter are awarded by the Committee of the Trustees on Scholarships, on the nomination of the Faculty Committee on Scholarships to students needing financial aid who have passed at least one year in college. They are held, unless otherwise stated, for one year only.

Two scholarships may not be held by the same person. Should two scholarships be assigned to the same student in one year, she must at once make choice as to which she will retain.

If a student fail to maintain a grade of at least C in all courses which she pursues, or if for any other reason she show herself an unsatisfactory candidate, she shall forfeit her scholarship and, in the case of non-competitive scholarships, shall be ineligible for reelection the following year. No student with entrance conditions unremoved, or with a grade below C in the year previous to that in which she is asking for help, will be eligible for a scholarship. For competitive scholarships complete entrance examinations in all subjects, *i. e.* a total of fifteen (15) points, are required. These may be taken in January or in June unless otherwise stated.

Before the first of April of each year all applications for non-competitive scholarships, accompanied with full credentials, must be filed at the Dean's office upon special blanks to be obtained there. Candidates for the competitive scholarships to be awarded on the basis of the June examinations should, in their application to the Secretary of the College Entrance Examination Board (see p. 19), mention the Barnard College scholarships for which they are competing. In order to qualify for the receipt of her stipend, the holder of a scholarship should report at the office of the Registrar not later than the first day of each half-year.

COMPETITIVE SCHOLARSHIPS

These, subject to the foregoing general regulations for scholarships, are as follows:

I. Open to all Students:

Trustees' Competitive Scholarship.....

Awarded annually by the Board of Trustees to the student who in June passes the best complete entrance examination in all subjects. It may be held for one year only. Jessie Kaufmann Scholarship Founded in 1902 by Mr. Julius Kaufmann in memory of his daughter, Jessie Kaufmann. The annual income from \$4,000 is awarded on the merits of the entrance examinations to a student who, after careful investigation, is found to have no relative able to assist her financially. It may be held for the entire college course. 2: Open to Particular Students: Brooklyn Scholarships..... T 2 Founded in 1895 by the Trustees of Columbia University in recognition of the gift to Columbia University by President Low of a memorial building for the University Library. They are open to students who have received their training in either the public or the private schools of Brooklyn, N. Y., and are residents of that city. Three of these scholarships will be awarded annually to qualified competitors who pass in June, without conditions, the best complete entrance examinations in all subjects. They may be held for the entire college course, but a holder, while retaining the title "Brooklyn Scholar," may transfer the income to any properly qualified candidate from Brooklyn without having her action made a matter of public record. Lucille Pulitzer Scholarships..... 3 Founded by Mr. Joseph Pulitzer in memory of his daughter, Lucille Pulitzer. They are awarded to undergraduate students entering the College from the City of New York who are found to have passed excellent entrance examinations and to be worthy of financial aid. They may be held for the first three years of the college course only. The first, (a) founded in 1899, is the income of \$10,000 and will be awarded in 1909, 1912, and corresponding years. The second and third, given in 1903, represent each one half the income of \$15,000; (b) will be awarded in 1910 and 1913, (c) in 1908 and 1911, and corresponding. years. NON-COMPETITIVE SCHOLARSHIPS These, subject to the general regulations for scholarships, are as follows: 1. Open to all Students: Student Scholarships..... [2 Given by the Committee of the Trustees on Scholar-

ships. They are supported by the income of a permanent

to \$9,680 and of the Arthur Brooks Fund (see below). The remainder is supplied by annual provision. These are not, as a rule, assigned to incoming students.	
Ella Weed Scholarship	
Founded by the pupils of Miss Anne Brown's School in	
memory of Miss Ella Weed, who was chairman of the Aca-	
demic Committee of the Board of Trustees of Barnard	
College during the first five years of its existence.	
Veltin School Scholarship	
Founded in 1905 by the alumnæ of Mlle. Veltin's School.	
Jennie B. Clarkson Scholarship	1
Founded in 1898 by the late Mrs. W. R. Clarkson.	
Emily James Smith Scholarship	
Founded in 1899 by Miss Emily H. Bourne in honor of	-
Miss Smith, then Dean of Barnard College. It is awarded	
in conference with the founder.	
Anna E. Barnard Scholarship]
Founded in 1899 by Miss Emily H. Bourne in honor of	
Mrs. John G. Barnard. It is awarded in conference with the founder.	
Brearley School Scholarship]
Founded in 1899 by pupils and former pupils of the	
Brearley School.	
Eliza Taylor Chisholm Memorial Scholarship	ļ
Founded in 1901 by the Alumnæ Association of Miss	
Chisholm's School, which association reserves the privilege	
of precedence for such candidates as it may recommend.	
Graham School Scholarship]
Founded in 1907 by the Graham Alumnæ Association.	
Keller School Scholarship]
Given in 1906 by the pupils of the Senior Department	
of Miss Keller's School, who reserve the privilege of pre-	
cedence for such candidates as they may recommend.	
Open to Particular Students:	
Mrs. Donald McLean Scholarship	1
Founded in 1906 by the New York Chapter of the Daugh-	
ters of the American Revolution. It is awarded, in con-	
ference with a representative of the Chapter, to a deserving	
student who agrees to pursue the study of history (chiefly	
that of the United States) continuously throughout her	
college course.	
Emma Hertzog Scholarship	1
Founded in 1904 by gifts from residents of Yonkers,	
N. Y. It is awarded, in conference with the Faculty of	
the Yonkers High School, to a graduate of that school.	
, ,	

2.

3. Special Funds for the Aid of Needy and Deserving Students: Arthur Brooks Fund.

A fund of \$5,000, given in 1897 by Miss Olivia E. Phelps Stokes as a memorial of the Reverend Arthur Brooks, D.D., Rector of the Church of the Incarnation and Chairman of the Board of Trustees of Barnard College during the first six years of its existence. This fund is at present applied to the maintenance of the Student Scholarships.

Fiske Scholarship Fund.

A fund of \$5,000, given by the late Mrs. Martha T. Fiske-Collord, the income of which is placed at the disposal of the Dean of Barnard College.

George W. Smith Scholarship Fund.

A fund of \$5,000 given in 1906 by the late Mrs. Martha T. Fiske-Collord as a memorial to Mr. George W. Smith, who was a Trustee of Barnard College. The income of the fund is placed at the disposal of the Dean of the College.

PRIZES

The following prizes are awarded annually, on the recommendation of the appropriate departments of the Faculty of Barnard College, in accordance with the special conditions named below. No prize will be awarded to any student who falls below grade C in any course during the year in which she is a competitor.

HERRMAN BOTANICAL PRIZE

A prize of \$50, founded by Mrs. Esther Herrman, is awarded annually to the most proficient undergraduate student in botany.

KOHN MATHEMATICAL PRIZE

A prize of \$50, founded by Mrs. S. H. Kohn, is awarded annually to a senior for excellence in mathematics. Competitors for this prize must have pursued mathematics continuously during their college course.

THE JENNY A. GERARD MEDAL

The Jenny A. Gerard Gold Medal, given in 1908 by the Society of the Colonial Dames of America in memory of Mrs. James Gerard, late President of the Society, is awarded annually to the undergraduate HONORS 57

student of American birth in Barnard College who presents the best essay on an assigned subject in American Colonial History. The successful essay or a copy thereof is to be sent to the wociety. The subjects for the essays to be handed in May 1, 1908, are "Sir Edmund Andros as a Colonial Governor" or "Leisler's Rebellion in New York" or "The Albany Congress of 1754"; 1909, "Bacon's Rebellion in Virginia" or "The Origin of the Struggle between the French and the English for the Possession of North America" or "The Repeal of the Stamp Act."

THE BUNNER MEDAL

The H. C. Bunner Gold Medal, established by the friends of the late Henry Cuyler Bunner, is awarded annually at Commencement to the candidate for a Columbia degree who shall present the best essay on an assigned subject in American literature. The award will be made by a committee to be appointed by the President. The subject for the essay to be handed in May 1, 1908, is "The Oratory of the American Revolution"; 1909, "Foreign Influences on Longfellow's Poetry."

EARLE PRIZE IN CLASSICS

A prize of \$50, established in memory of Mortimer Lamson Earle, Instructor in Greek in Barnard College from 1889 to 1895 and from 1898 to 1900, and Professor of Classical Philology from 1900 to 1905, will be open for annual competition to all candidates for the degree of Bachelor of Arts. It will be awarded partly on the basis of the regular work of the year in Greek and in Latin, partly on the basis of a special examination held in May or June. The special examination will cover specified portions of Greek and Latin literature, sight-reading in Greek and in Latin, and prose composition in Greek and in Latin. For 1909 the special subjects will be the Gorgias of Plato and Book V of Lucretius.

HONORS

Honors are of two kinds, departmental and general honors. Departmental honors will be granted in any year in any department for high excellence in courses of that department. Such excellence shall be indicated by the grade of A obtained in courses aggregating at least six points and by the satisfactory performance of additional work set by the department. Students must announce their candidacy to the head of the department not later than April 1 of the year of candidacy.

Except by special decision of the Committee on Honors, no student falling below C in any of the courses taken by her during the year of candidacy will receive honors.

A student who has won honors in any department successively during the last three years of her college residence shall be granted at graduation highest final honors in said department.

General honors will be granted at the end of every college year to students who during the said year have obtained grade A in the majority of the courses taken by them, provided they have not fallen below grade B in any course in said year.

Highest final general honors will be granted at graduation to all students who have obtained grade A in the majority of the courses taken by them during the last three years of college, residence provided they have not fallen below grade B in any course in said years.

THE UNIVERSITY LIBRARY

The University Library is open each week-day (except Thanksgiving, Christmas, Good Friday, and Independence Day) from 8.30 A.M. until 11 P.M., October-June; and until 10 P.M., July-September. All officers, students, and graduates of all departments of the University have free access to the Library and may draw books for home use.

About 10,000 carefully selected reference books and the most important works on all subjects, in standard editions, representing the leading authors in all literatures, are placed in the general reading-room directly accessible to all readers.

The Library contains about 390,000 volumes, exclusive of unbound pamphlets and duplicates, and some 30,000 German dissertations.

For the convenience of the undergraduates of Barnard College there is also maintained in the Ella Weed Memorial Reading-room at Barnard College a carefully selected reference library of about 4,000 volumes.

The entire Library is carefully and accurately catalogued both by authors and subjects. The catalogue is on cards accessible to readers.

CHAPEL SERVICE

Chapel service is held on Tuesday and Friday of each week at twelve o'clock in the college assembly-room. The service lasts about twenty minutes and is usually conducted by some clergyman of the city or by some officer of the University. Attendance is entirely voluntary.

STATISTICS

The following tabular statement indicates the growth of the College from its foundation:

190°1	59 116 95 135	405	38 38
1906 to 1907	63 110 888 130	391	165 165 165 165 165 165 165 165 165 165
1905 to 1906	81 78 97 111	367	. H
1904 to 1905	83 71 75 110	339	\$ 20 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1903 to 1904	78 79 72 101	330	. H 4 A R 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
1902 to 1903	047.	294	.00
1901 to 1902	1847 188 ·	269	
1900 to 1901	\$ 8 % 8 % 9 % 9 % 9 % 9 % 9 % 9 % 9 % 9 %	223	
1899 to 1900	04480	171	120
1898 to 1899	4 4 8 8 4 5 · ·	131	275 272 37 111 116 160 272
1897 to 1898	0 0 0 0 ·	III	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
1896 to 1897	H 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	85	944 · · · · 9 · · · 80 81 · · · · · · · 80 81 · · · · · · · · · · · · · · · · · ·
1895 to 1896	8 1 8 8	81	88 r 8 8 r 8 8 r 8 8 r 8 8 r 8 8 r 8 r
1894 to 1895	0,00,00	7.1	88 H H B B H H B B H H B B B B B B B B B
1893 to 1894	700g:	59	812
1892 to 1893	8 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	51	N O d
1891 to 1892	16	30	N
1890 to 1891	. :00 1-4	61	4 · · · · · · · · · · · · · · · · · · ·
1889 to 1890	40	1.4	30 30
	Undergraduates: Seniors. Juniors. Sophomores. Freshmen (regular). (partly regular).		GRADUATE STUDENTS. SPECIAL STUDENTS. Non-matriculated Botany. Chemistry. Political Science Music STUDENTS. STUDENTS FROM TEACH- ERS COLLEGE. STUDENTS FROM COLUM- BIA UNIVERSITY. TOTAL REGISTRATION. DEGREES CONFERRED: A.B. A.M. Ph.D.

DEPARTMENTAL STATEMENTS

The following general regulations apply to all courses:

When an announced course has not been applied for by at least three candidates for a degree, the instructor may withdraw it.

Where the hours for laboratory work are not given either in the departmental statement or in the scheme of attendance, they must be arranged after consultation with the officer in charge of the course.

Prescribed courses are designated by capital letters. Elective courses are designated by numbers, odd numbers for the first half-year courses and even numbers for the second half-year courses. A compound course is therefore designated by an odd number and the succeeding even number. The numbers from 1 to 99 inclusive are given to courses open only to undergraduates; the numbers from 101 to 199 inclusive are given to courses open to both undergraduates and graduates; the lower numbers in each case being used for the introductory courses.

In the statement of each course the prerequisites are indicated. When no department is named it is to be assumed that the reference is to a numbered course in the same department.

A hyphenated course (e.g., Anthropology 1-2) is regarded as a full year course of which the first half is always assumed to be a prerequisite for admission to the second half, and credit for either half may be obtained only on the recommendation of the instructor and with the permission of the Committee on the Program of Studies. A course in which the index signs are separated by a comma (e.g., English A1, A2), is regarded as a divisible course of which each half-year can be taken separately.

Courses marked with an asterisk (*) are given at Columbia University and, with the exception of courses in Music, are open only to seniors. Courses marked with a dagger (†) are given at Teachers College.

For more detailed information in regard to topics, text-books, or methods, in any particular course, students are referred to the instructors.

ANTHROPOLOGY

I-2—General Introductory Course. Professor FARRAND and Dr. Wissler. 6 points.

M., W., and F. at r.

Open to juniors and seniors.

This course consists of a general outline of anthropology. A general discussion of the physical characters of the earliest human remains and their relations to present forms is given, and a description of contemporary savage groups and their distribution is included. Special stress is laid on the discussion of the mental development of primitive man, together with a description of types of primitive culture and an inquiry into the relation and development of particular phases of culture.

*101-102—General Ethnography. Professor Boas. 4 points.

W. and F. at 9.

*103-104—Prehistoric Archæology. Professor Saville and Dr. Berkey. 4 points.

M. and W. at 11.

*105-106—Ethnology—Primitive Culture. Professor Farrand. 4 points.

M. and W. at 3.

Prerequisite: Course 1-2.

[*107-108—Ethnography of America and Siberia. Professor Boas. 4 points.

Not given in 1908-09.]

*109-110-Ethnography of Africa. Professor Boas. 4 points.

Tu. and Th. at 11.

*115-116-Mexican Archæology. Professor Saville. 4 points. M. and W. at 10.

Prerequisite: Course 101-102, 103-104, or 105-106.

*117-118—American Languages. Professor Boas. 4 points.

Tu. and Th. at 10.

*121-122—Anthropometry. Professor Boas. 6 points.

Tu. and Th. at 9, and 3 hours of laboratory work.

Prerequisite: Mathematics 12 or its equivalent.

*127—Archæology of Peru. Mr. BANDELIER. 2 points.

F. at 3.

[*129-130-American Languages. Advanced course. Professor Boas.

Not given in 1908-09.]

For fuller information regarding courses in the Department of Anthropology, students are referred to the Announcement of the Division of Philosophy, Psychology, and Anthropology.

ARCHITECTURE

*21-22—Ancient Architectural History. Professor Kress. 6 points. Tu. and Th. at 10 and Tu. at 11.

*23-24—Mediæval Architectural History. Early Christian, Byzantine, Romanesque, Gothic, and Oriental architecture. Professors Hamlin and Kress. 4 points. Lectures, research work.

M. and F. at 9. Research, afternoons of five weeks of second half-year (optional); dates to be arranged in conference with the instructors.

*25-26—Modern Architectural History. The Renaissance, modern revivals, and American architecture. Professors Hamlin and Kress. 4 points. Lectures, research work.

M. and F. at 11. Research, afternoons of five weeks of second half-year (optional); dates to be arranged in conference with the instructors,

ASTRONOMY

*1-2—General Astronomy. Professor MITCHELL. 4 points.

Tu. and Th. at 11.

This course is historical and descriptive; intended for students who do not desire to specialize. The lectures are illustrated. The new Wilde observatory is open to students of Course 1-2 on the first Tuesday and third Thursday evenings of each month, for observation of planets, satellites, nebulæ, etc. This part of the course is in charge of Professor Jacoby.

*103-104—Spherical and Practical Astronomy. Professor JACOBY.
2 lectures and 2 hours of observatory work. 6 points.

Hours to be arranged.

Prerequisite: Course 1-2 and Mathematics 21.

This course covers a more mathematical treatment, including the practical use of instruments. It is intended for students desiring a working knowledge of astronomy.

For fuller information regarding courses in the Department of Astronomy, students are referred to the Announcement of the Division of Mathematical and Physical Science.

BOTANY

51-52—Principles of the Morphology and Physiology of Plants. Professor Richards, Miss Latham, and Miss Thompson. 2 lectures, 4 hours of laboratory work. Demonstrations to accompany lectures. 8 points.

Lectures M. and F. at 9. Demonstrations W. at 9.

Laboratory fee, \$2.50.

53-54—General Morphology and Development of Plants, Study of Types. Dr. HAZEN and Miss THOMPSON. 2 lectures, 4 or 6 hours of laboratory work, 8 or 10 points.

Tu. and Th. at 11.

Laboratory fee, \$2.50.

Course 53-54 is not open to freshmen. It should ordinarily be preceded by 51-52 but is open, on consultation with the instructor, to students of sufficient training who also either attend the lectures 51-52 or elect the full 6 hours of laboratory work in Course 53-54.

55-56—Morphology and Classification of Spermatophytes, Study of the Natural Orders. Dr. HAZEN. 1 hour lecture or conference, 4 or 6 hours of laboratory work. 6 or 8 points.

M. at 3.

Laboratory fee, \$2.50.

Prerequisite: Course 51-52 or Entrance Botany.

[151-152—Bacteriology. 1 lecture and a minimum of 6 hours of laboratory work. 8 points.

Laboratory fee, \$2.50 for each half-year.

Prerequisite: Course 53-54 and some knowledge of chemistry.

Not given in 1908-09.]

153—Anatomy of Vascular Plants. Professor Richards and Miss Latham. 2 lectures and a minimum of 6 hours of laboratory work, 5 points.

Tu. and Th. at 9.

Laboratory fee, \$2.50.

Prerequisite: Course 53-54.

[154—Physiology of Plants from Standpoint of Nutrition. Professor RICHARDS and Miss LATHAM. 2 lectures and a minimum of 6 hours of laboratory work. 5 points.

Laboratory fee, \$2.50.

Prerequisite: Course 153 and some knowledge of chemistry.

Not given in 1908-09.]

Courses 154 and 156 are given in alternate second half-years.

156—Physiology of Plants from Standpoint of Growth. Professor RICHARDS and Miss LATHAM. 2 lectures and a minimum of 6 hours of laboratory work. 5 points.

Tu. and Th. at 9.

Laboratory fee, \$2.50.

Prerequisite: Course 153 and some knowledge of chemistry.

Courses 153, 154, and 156 are open to students only after consultation with the nstructor.

158—Structure and Development of Algæ. Advanced course. Professor Richards and Dr. Hazen. 1 lecture and 6 hours of laboratory work. 4 points.

Hours to be arranged.

Laboratory fee, \$2.50.

Prerequisite: Courses 51-52 and 53-54.

159—Structure and Development of Fungi. Advanced course. Professor Richards. 1 lecture and 6 hours of laboratory work. 4 points.

Hours to be arranged.

Laboratory fee, \$2.50.

Prerequisite: Courses 51-52 and 53-54.

Courses 158 and 159 are given either the first or second half-year to suit the convenience of the instructor and students. The two courses will not usually be given the same year.

160—Developmental Anatomy. Practice in methods of technique Professor Richards and Miss Latham. 8 hours of laboratory work with occasional lectures and outside reading. 4 points.

Hours to be arranged.

Laboratory fee, \$2.50.

Prerequisite: Course 153; parallel: Course 154 or 156.

This course may be given in the first or in the second half-year.

161-162—Advanced Physiology and Morphology Professor Richards and Dr. Hazen.

Work will be arranged to suit the needs of the students, and credit will be given according to the amount accomplished. Open to students only after consultation with the instructors.

Laboratory fee, \$2.50 for each half-year.

With the permission of the instructor this course may be taken in successive years.

CHEMISTRY

Students are requested to elect courses in the following order: 5-6, 63, 64, 41-42, 43-44.

5-6—General Inorganic Chemistry. Dr. Reimer, Miss Keller, and Miss Reynolds. 5 hours, including lectures, discussions, and laboratory work. 6 points.

M., W., and F. at 11. Laboratory work, Tu., W., or Th., 2-4.30.

Laboratory fee, \$5.

41-42—Organic Chemistry, Elementary Lecture Course. Dr. Rei-MER. 2 lectures. 4 points.

M. and W. at 1.

Prerequisite: Course 5-6. It is urged that Course 43-44 be taken with this course.

This course is equivalent to Course 147-148 at Columbia and, when taken with Course 43-44 by a graduate student, may count as a minor for a higher degree.

43-44—Organic Chemistry, Elementary Laboratory Course. Dr. Reimer. 8 hours. 8 points.

Hours to be arranged.

Laboratory fee, \$20.

Prerequisite: Courses 5-6, 41-42. Recommended as a parallel to Course 41-42.

This course is designed to teach the student the important methods of preparation of organic compounds.

A special laboratory course of 4 hours a week counting as 4 points is offered, after consultation with the instructor.

63—Qualitative Analysis. Miss Keller. 3 lectures and 8 hours of laboratory work. 7 points.

Tu. and Th. at 11 and a third hour to be arranged.

Laboratory fee, \$6.

Prerequisite: Course 5-6.

64—Quantitative Analysis. Miss Keller. 3 lectures and 8 hours of laboratory work. 7 points.

Tu. and Th. at II and a third hour to be arranged.

Laboratory fee, \$6.

Prerequisite: Courses 5-6 and 63.

The lecture work of Courses 63 and 64 consists of two hours a week devoted to the general chemistry of the subject, and one hour to elementary theoretical chemistry.

[105-106—Inorganic Chemistry, Advanced Course. Miss Keller. 3 lectures and 6 hours of laboratory work. 12 points.

Laboratory fee, \$20.

Prerequisite: Courses 5-6, 63, 64, and Physics 11-12.

This course is designed to supplement Courses 63 and 64. The lectures will be devoted to a detailed discussion of the elements, including the rare elements, and advanced theoretical chemistry. The laboratory work will consist of practice in preparation of inorganic compounds, mineral analyses, and physical-chemical measurements.

Not given in 1908-09.]

145-146—Organic Chemistry, Advanced Course. Dr. Reimer. 3 lectures and 6 hours of laboratory work. 12 points.

Hours to be arranged.

Laboratory fee, \$20.

Prerequisite: Courses 5-6, 41-42, 43-44.

This course is designed to supplement Courses 41-42 and 43-44. It is a more comprehensive discussion of the most important classes of organic compounds and their relations to each other. Special emphasis will be given to recent theories as to the structure of the compounds and the mechanism of their reactions. The laboratory work consists of the preparation of organic compounds discussed in the lectures and the study of their reactions. In the second half-year, some special problem is assigned to each student.

Journal Club. Dr. Reimer and Miss Keller. I hour.

The advanced students and the instructors meet for reports and discussion on recent scientific papers.

ECONOMICS AND SOCIAL SCIENCE

Economics

A—Outlines of Economics. Study of the characteristics of modern industrial society and of the fundamental economic principles. Professor Moore and assistants. First half-year. 3 points.

Entire Class, M. at 10; Sections I and II, W. and F. at 10; Sections III and IV, Tu. and Th. at 10.

Prescribed for juniors. Open to qualified sophomores who take Course 4.

4—Practical Economics. Professor Moore and assistants. 3 points. Entire Class, M. at 10; Sections I and II, W., and F. at 10.

This course is continuous with Course A. It is intended to illustrate the application of economic principles to such practical questions as money and banking, the tariff and foreign trade, railroads, monopolies, the labor movement, and socialism.

[105—The Labor Problem. Professor SEAGER. 2 points.

Prerequisite: Course A.

Not given in 1908-09.]

[*107—Fiscal and Industrial History of the United States. Professor Seligman. 2 points.

Prerequisite: Courses A and 4.

Not given in 1908-09.]

[*108—Railroad Problems. Professor Seligman. 2 points.

Prerequisite: Courses A and 4.

Not given in 1908-09.]

109—Communistic and Socialistic Theories. Professor CLARK. 2 points.

Tu. and Th. at 11.

Prerequisite: Course A.

110—Theories of Social Reform. Professor CLARK. 2 points.

Tu. and Th. at 11.

Prerequisite: Course A.

[120—Government and Industry. Professor SEAGER. 2 points.

In this course the industrial functions of government are considered with special reference to the United States. Among the topics treated are the effect of different methods of taxation on business and the regulation of mono polies and trusts.

Prerequisite: Course A. Not given in 1908-09.]

Sociology

Tu. and Th. at 3. Professor Simkhovitch. 4 points.

Prerequisite or parallel: Economics A.

Topics of the first half-year are racial composition, occupations, homes and social life of the Industrial Family. Topics of the second half-year are rents, dress, food, housing, education, and recreation as related to the standard of living.

13-14—Social Progress in Cities. Professor Simkhovitch. 4 points.

Tu. and Th. at 2.

Course II-I2 is recommended as a parallel.

Public agencies charged with the welfare of the community will be discussed in the first half-year. Private institutions or associations working for social progress are discussed in the second half-year.

*151-152—Principles of Sociology. Professor Giddings and Mr. Tenney. 4 points.

M. and W. at 3.

Prerequisite: Economics A.

EDUCATION

Education A is prerequisite to all other courses in Education. Education B must be taken parallel with other courses in the senior year.

†A (b and c)—Educational Psychology. Professors Thorndike and Suzzalo, Dr. Norsworthy, and Miss Whitley. 4 points.

In A (c), the class will meet together on M. at 4 throughout the year; in A (b) in sections during the second half-year as follows:

(I, II) M., W., and F. at 9, open to candidates for the Bachelor's diploma with a major subject in kindergarten and elementary teaching and supervision.

(V, VII) M., W., and F. at 2 for candidates for the Bachelor's diploma with a major subject in secondary teaching.

Attendance on the Monday section hour, a conference, is optional.

Any other section meeting at times stated in the Teachers College Announcement may be substituted with the approval of the instructor.

Students who have previously had some work in Education may substitute Course 19-20 for Course A.

†B—History and Principles of Education. Professor Monroe and assistants. 6 points.

Th. at 4 and conference hours in sections.

(VII) M., W., and F. at 10 for candidates for a Bachelor's diploma with a major subject in secondary teaching. This section is recommended as most appropriate for students of Barnard College.

Students who have some previous knowledge of the field covered by Education B may substitute Course 105-106 for Course B.

† 2—Logic as applied to problems of teaching. Professor Dewey. 2 points.

Tu. and Th. at 5.

†19-20—Readings in Educational Psychology. Dr. Norsworthy. 4 points.

Tu. and Th. at q.

This course may be substituted for Course A by students who have previously had some work in Education.

†21-22—Child Study. Dr. Norsworthy. 4 points.

Tu. and Th. at 10.

†87-88—Personal and School Hygiene. Professor Wood. 4 points. M. and W. at 11.

†105-106—Principles of Education. Professor MacVannel. 4 points. Tu. and Th. at 2.

This course may be substituted for Course B by students who have some previous knowledge of the field covered in that course.

†121-122—Genetic Psychology. Professor Thorndike. 4 points. M. and W. at 11.

ENGLISH

A1, A2—English Literature and Composition. Professor Brewster, Professor Weeks, Mr. Tassin, Miss Howard and Mr. ——. 6 points.

Tu., Th., and S. at 10.

Prescribed for freshmen.

The first term will deal with English composition, the second with English literature. Students who enter college at the opening of the second term may take the literature at once and the composition the following fall, or, if circumstances warrant the forming of a separate section, at the same time as the literature.

Tu. and Th. at 9 and a third hour to be arranged.

Prerequisite: Course A1, A2.

Prescribed for sophomores.

As in Course A1, A2, the work of the first term is to be regarded as independent of that of the second.

1, 2—English Composition. Professor Brewster. 6 points.

Tu. and Th. at 11 and a third hour to be arranged.

Prerequisite: Course B1, B2.

With the permission of the instructor, this course may be taken in two successive years. The course may be elected or dropped at the end of the first term, but, except for very good reasons, the second term may not be elected unless the student has passed at least once the work of the first half-year.

7-8—Elocution. Mr. Tassin. 3 hours. 4 points.

M., W., and F. at 2.

Not open to freshmen.

23-24—English Literature in the Nineteenth Century. Professor Hubbard. 4 points.

Section I, W. and F. at 10; Section II, W. and F. at 11.

Course 23-24 is intended for freshmen and sophomores and should be taken before more advanced work in literature.

25-26—English Literature in the Seventeenth Century. Professor TRENT. 4 points.

M. and W. at 11.

Prerequisite: Course 23-24.

Courses 25-26 and 27-28 are given in alternate years.

[27-28—English Literature in the Eighteenth Century. Professor TRENT. 4 points.

Not given in 1908-09.]

29–30—English Literature of the Earlier Periods. Professor KRAPP. 4 points.

M. and W. at 2.

Prerequisite: Course 23-24.

31-32—English Literature in the Sixteenth Century. Professor TRENT. 4 points.

M. and W. at 10.

Prerequisite: Course 23-24.

33-34—Special Studies in English Literature. Topic for 1908-1909: First half-year: Browning; second half-year: contemporary writers and tendencies. Professor Hubbard. 4 points.

Tu. and Th. at 10.

Open only to juniors and seniors.

35-36—Shakespeare. Miss GILDERSLEEVE. 6 points.

M., W., and F.at 11.

Prerequisite: Course 23-24.

37-38—English Prose exclusive of Fiction. Professor Hubbard. 4 points.

Tu. and Th. at 9.

Prerequisite: Course B1, B2.

Courses 37-38 and 39-40 are given in alternate years.

[39-40—The Development of English Fiction. Professor Brewster. 4 points.

Not given in 1908-09.]

41-42—English Drama to the closing of the Theatres in 1642. Mr. TASSIN.

Tu. and Th. at 2.

Prerequisite: Courses B1, B2 and 23-24.

Courses 41-42 and 43-44 are given in alternate years.

[43-44—English Drama from 1642. Mr. TASSIN. 4 points. Not given in 1908-00.]

45-46—English Literary Criticism. Professor G. R. CARPENTER. 4 points.

Tu. and Th. at 3.

Open only to seniors.

†55-56—Nineteenth Century Writers. Professor Baker. 6 points. M., W., and F. at 1.

With the consent of the Dean certain courses in the Graduate School are open to specially qualified seniors.

FINE ARTS

†53-54—Art Appreciation; History of Art. Professor Dow. 4 points.

Tu., 4-5.30.

French. See Romance Languages and Literatures.

GEOGRAPHY

†1-2—General Geography. Professor Dodge and Miss C. B. Kirchwey. Lectures and laboratory work. 6 points.

Tu. 10-12, Th. and S. at 10.

Laboratory fee, \$2.

Open to all undergraduate students.

GEOLOGY

1-2—General Geology. Elementary course. The time-honored subjects of physical, structural, dynamical, stratigraphical and historical geology are treated as parts of a single subject, from the point of view, first of processes and their results, later of the history of the earth. Dr. Ogilvie. 2 lectures, 2 hours of laboratory work. 6 points.

Tu. and Th. at 10. Laboratory work, W., 1-3 or 2-4; or field work W. afternoon.

101-102—General Geology. The same lectures as 1-2, but with 4 hours of laboratory work. Intended primarily for students who are specializing in science. Dr. Ogilvie. 2 lectures, 4 hours laboratory work. 8 points.

Tu. and Th. at 10. Laboratory hours to be arranged.

Prerequisite, desirable but not essential: Chemistry 5-6, Zoölogy 1-2, Geography 1-2, and some knowledge of mineralogy.

113—Summer Field Course. Dr. OGILVIE. 2 weeks in the field involving the subsequent preparation of a report. 4 points.

Time to be arranged.

Prerequisite: Course 101-102.

117-118—Glacial Geology and Advanced Physiography. Dr. Ogilvie i lecture, with reading, field and laboratory work.

Work will be arranged to suit the needs of the students and credit will be given according to the amount accomplished.

Prerequisite: Course 101-102.

119-120—General Geology. Advanced Course. Dr. Ogilvie. Lectures, laboratory work, and readings. 4, 6, or 8 points.

Hours to be arranged.

Prerequisite: Course 101-102.

*205-206—Historical Geology. A comparative study of the geological formations of North America. Professors Kemp and Grabau. 3 lectures, reading, laboratory work. 6 or more points.

Hours to be arranged.

Prerequisite: Courses 101-102; 117-118; 119-120.

Journal Club—The advanced students and instructors in Columbia University meet for 1 hour weekly for the discussion of current papers and problems. The meetings of the Journal Club are open to Barnard students taking Courses 117–118, 119–120 and to seniors in 101–102.

GERMANIC LANGUAGES AND LITERATURES

A1-A2—Elementary Course. Mr. Bechert, Mr. Porterfield and Mrs. Haskell. 6 points.

Section I, M., W., and F. at 10; Section II at 11; Section III at 2; and Section IV at 3.

Prescribed for freshmen who did not present elementary entrance German.

1-2—Intermediate Course. Reading, Grammar, and Composition. Mr. Bechert, Mr. Porterfield, and Mrs. Haskell. 6 points.

Section I, M., W., and F. at 9; Sections II and III at r.

Prerequisite: Course A1-A2, or elementary entrance German.

One hour (Tu. at 1 or Th. at 10) of Course 3-4 may be elected by students taking Course 1-2, which will then count as an 8-point course.

3-4—Composition and Colloquial Practice. Elementary Course. Drill in German syntax and idiom. Mr. BECHERT and Mr. PORTERFIELD. 4 points.

Section I, Tu. at 1; Th. at 10; Section II, Tu. and Th. at 2.

Prerequisite: Course AI-A2, or elementary entrance German

Prerequisite: Course A1-A2, or elementary entrance German.

5-6—Selected Works of Lessing, Goethe and Schiller. Texts, chiefly dramatic, and essays. Dr. Braun, Mr. Bechert and Mr. Porterfield. 6 points.

Section I, M., W., and F. at 9; Sections II and III at 1.

Prerequisite: Course 1-2, or intermediate entrance German.

One hour (Tu. at 1 or Th. at 10) of Course 3-4 may be elected by students taking Course 5-6, which will then count as an 8-point course.

7, 8—Historical Prose. Rapid reading of selections from German historians, essayists, and critics. Dr. Braun. 4 points.

Tu. and Th. at r.

Prerequisite: Course 1-2, or intermediate entrance German.

One hour (Tu. at 1 or Th. at 10) of Course 3-4 may be elected by students taking Course 7, 8, which will then count as a 6-point course.

9, 10—Intermediate Practice Course. Conversation and themes on German life, literature and current events, all in German. Dr. Braun. 4 points.

Tu. and Th. at 2.

Prerequisite: Course 3-4, 5-6, or 7, 8.

11, 12—Advanced Practice Course. Discussion of syntax, idioms, and synonyms. Talks and themes, all in German, upon linguistic and literary topics. Mr. Heuser. 4 points.

Tu. and Th. at 10.

Prerequisite: Course 9, 10, or its equivalent.

13-14—Selected Dramas of the Nineteenth Century. Texts of representative dramatists, such as Kleist, Grillparzer, and Ludwig; reports and essays. Dr. Braun. 4 points.

Tu. and Th. at 9.

Prerequisite: Course 5-6.

17-18—History of German Literature from the earliest times to the nineteenth century. Lectures, themes, and readings from Thomas's Anthology of German Literature. Professor Thomas. 4 points.

Tu. and Th. at 11.

Prerequisite: Course 5-6, or 7, 8.

19-20—Goethe's Faust; First and Second Parts. Lectures and recitations. Dr. Braun. 4 points.

M. and W. at o.

Prerequisite: Course 5-6, or 7, 8.

*105—German Literature in the Nineteenth Century, with Special Reference to Prose Fiction. Lectures. Professor Thomas. 2 points.

Tu. and Th. at 4.

Prerequisite: Course 17–18.

*106—Modern German Dramatists. Hauptmann and Sudermann. Lectures. Professor Tombo. 2 points.

Tu. and Th. at 4.

Prerequisite: Course 17-18.

*107-108—History of the German Language. Lectures and texts. Professor W. H. CARPENTER. 4 points.

M. and W. at 2.

Prerequisite: Course 5-6, or 7, 8.

*109-110-Old High German. Lectures and texts. Professor W. H. Carpenter. 4 points.

Tu. and Th. at 2.

Prerequisite: Course 107-108.

Courses 109-110 and 115-116 are given in alternate years.

[*III-II2—Middle High German. Linguistic Course. Lectures and texts. Professor Hervey. 4 points.

Prerequisite: Course 107-108.

Not given in 1908-09.]

Courses 111-112 and 113-114 are given in alternate years.

*113-114-Middle High German. Literary Course. Lectures and readings. Professor Hervey.

Tu. and Th. at 3.

Prerequisite: Course 17-18.

[*115-116-Old Saxon. Lectures and texts. Professor W. H. CARPENTER. 4 points.

Prerequisite: Course 107-108.

Not given in 1908-09.]

[*117-118-Swedish. Professor Thomas. 4 points.

Prerequisite: Course 5-6, or 7, 8.

Not given in 1908-09.]

[*119-120—Danish. Professor Thomas. 4 points.

Prerequisite: Course 5-6, or 7, 8.

Not given in 1908-09.]

[*121-122—Icelandic. Elementary Course. Professor W. H. CAR-PENTER. 4 points.

Prerequisite: Course 107-108.

Not given in 1908-09.]

Courses 121–122 and 123–124 are given in alternate years.

*123-124—Icelandic. Advanced Course. Professor W. H. CAR-PENTER. 4 points.

M. and W. at 3.

Prerequisite: Course 121-122.

*125-126-Dutch. Professor W. H. Carpenter. 4 points.

Tu. and Th. at 3.

Prerequisite: Course 5-6, or 7, 8.

*127-128—Gothic. Lectures and texts. Professor Remy. 4 points. M. and W. at 4.

Prerequisite: Course 107-108.

*129-130—Outlines of the History of German Civilization. Lectures. Dr. Richard. 4 points.

Tu. and Th. at 4.

Prerequisite: Course 17-18.

*131-132—German Civilization in the Middle Ages. Lectures, themes, and readings from sources. Dr. Richard. 4 points.

Tu. and Th. at 11.

Prerequisite: Course 17-18.

*133-134—History of the German Drama from the Middle Ages to the Death of Schiller. Professor Thomas. 4 points.

M. and W. at 4.

Prerequisite: Course 17-18.

GREEK

(See the note prefixed to the announcement of courses in Latin.)

I-2—Elementary Course: Grammar, Composition, Xenophon's Anabasis, Homer's Iliad. Dr. Sturtevant. 6 points.
M., Tu., W., Th., and F at 2.

GREEK 73

Prerequisite: elementary entrance Latin.

This course may not be begun in the second half-year. It is designed for students who have entered without Greek but wish to include it in their course of study. It is believed that such students will be qualified to enter Course 3 or Course 5 at the beginning of the following year.

3—Homer: the Odyssey (selections); lectures and readings in Greek life and thought. Dr. Shear. 3 points.

M., W., and F. at 10.

Prerequisite: Course 1-2 or elementary entrance Greek.

4—Euripides: Alcestis and Medea; lectures and readings in Greek life and thought. Dr. Shear. 3 points.

M., W., and F. at 10.

Prerequisite: Course 1-2 or elementary entrance Greek.

5—Xenophon: Memorabilia. Dr. Sturtevant. Greek prose composition weekly. Dr. Shear. 3 points.

M., W., and F. at 11.

Prerequisite: Course 1-2 or elementary entrance Greek.

6—Plato: Apology and Crito. Miss Hirst. Greek prose composition weekly. Dr. Shear. 3 points.

M., W., and F. at 11.

Prerequisite: Course 1-2 or elementary entrance Greek.

7—Sophocles: Oedipus Tyrannus and Antigone. Professor Perry. 2 points.

Tu. and Th. at 11.

8—Lucian (selections). Professor Young. 2 points.

Tu. and Th. at 3.

9—Herodotus (selections from Books VI, VII). Miss Hirst. 3 points.

M., W., and F. at 1.

vo—Thucydides (selections from Books VI, VII). Dr. Shear. 3 points.

M., W., and F. at 1.

15—Aeschylus: Prometheus and Agamemnon. Dr. Shear. 3 points.

M., W., and F. at 3.

16-Plato: The Republic. Miss Hirst. 3 points.

M., W., and F. at 3.

17-18—Elementary Greek Prose Composition. Dr Shear. 2 points. M. at 11.

This course may elected by second-, third-, or fourth-year students who have not previously counted any course in Greek composition toward the degree.

19-20—Greek Literature: lectures and required reading. Dr Shear. 6 points.

Tu. and Th. at 2.

23-24—Advanced Greek Prose Composition. Miss Hirst. 2 points.

Tu. at 10.

With the permission of the Head of the Department this course may be taken in successive years.

25-26—Greek Life and Thought: lectures and readings. Dr. Shear 2 points.

F. at 10.

This course constitutes the third hour of Course 3-4 and may be elected by any student taking any other course in the department.

HISTORY

AI-A2—Epochs of Ancient, Mediæval, and Modern History with special reference to forms of government and changes in social conditions. Professor Shotwell and Miss Huttmann. 6 points.

Entire class, Tu. at 1. Section I, Th. at 11 and S. at 9; Section II, Th. at 1 and S. at 10.

Prescribed for sophomores, but may be taken as an elective by freshmen.

This course is prerequisite to all the courses enumerated below.

Students who pass the entrance examinations in ancient, mediæval, and modern history will be allowed to take a special examination on the same periods based on the requirements of History AI-A2. If they satisfy this test, they will be permitted to substitute for History AI-A2, as the prescribed work, any course in history numbered less than 100, provided that the total number of points of credit attached to the course be not less than six.

3-4—Greece and Early Rome. Professor Botsford. 6 points. M., W., and F. at 10.

Courses a 4 and a 6 and aire a in

Courses 3-4 and 5-6 are given in alternate years.

[5-6—The Roman Empire. Professor Botsford. 6 points. Not given in 1908-09.]

9-10—Continental European History, modern and contemporaneous. Professor Shotwell and Miss Huttmann. 6 points.

Tu. and Th. at 2, and a third hour to be arranged.

II-I2—Modern English History. Professor Beard. 6 points. M., W., and F. at II.

13-14—History of the United States to the Close of Reconstruction. Professor Shepherd. 6 points.

M., W. and F. at 11.

†51-52—Literature of American History. Professor Johnson. 4 points.

Tu. and Th. at 3.

121-122—History of Europe from the Break-up of the Roman Empire to the Protestant Revolt, with especial attention to the intellectual life. Professor Robinson and Miss Huttmann. 6 points.

Tu. and Th. at 3, and a third hour to be arranged.

LATIN 75

[*157-158—The History of England during the Eighteenth and Nineteenth Centuries. Professor Osgood. 4 points.

Not given in 1908-09.]

169—170—The System of Government in the United States: its operation; its history; and its characteristics as compared with those of European governments. Professor Shepherd. 4 points.

M. and W. at 2.

Italian. See Romance Languages and Literatures.

LATIN

For the first two years especially the three-hour courses will be mainly but not wholly linguistic, the two-hour courses mainly literary in character. The linguistic courses are intended specifically for those who purpose to teach Latin; such students should also give all possible time to the courses in prose composition. The literary courses are intended for those who study Latin in the interests of general culture rather than for professional reasons. Those who purpose to be teachers cannot, however, afford wholly to neglect the literary courses, nor, on the other hand, can those whose interests are mainly literary secure the best results without careful linguistic study.

Accordingly, that all students may be able to make use of the advantages offered in Greek and Latin, they will be allowed at the beginning of the later years, with the consent of the Head of the Department, to elect courses of the earlier years not yet counted toward the degree. In all such cases the student will be required to do some extra work prescribed by the instructor in charge of the course. The attention of advanced students is called to the courses in Greek and Roman Life.

Ar—Horace: Odes (selections). Professor KNAPP and Dr. Shear. Lectures and readings in Roman life and thought. Professor KNAPP. 3 points.

Sections I and II, Th. and S. at 9; Roman life, Tu. at 9.

Prescribed for freshmen taking the A.B. course, unless they elect Course B or have offered Advanced Latin at entrance.

A2—Vergil: Eclogues; Ovid (selections). Professor Knapp and Dr. Shear. Lectures and readings in Roman life and thought. Professor Knapp. 3 points.

Sections I and II, Th. and S. at 9; Roman life, Tu. at 9.

Prerequisite: Course A1.

Prescribed for freshmen as above.

BI—Cicero: De Senectute and De Amicitia. Professor KNAPP and Dr. STURTEVANT. Latin Prose composition weekly. Professor KNAPP. 3 points.

Sections I and II, W. and F. at 1; Prose composition, Section I, M. at 9; Section II, at 1.

Prescribed for freshmen taking the A.B. course, unless they elect Course A or have offered Advanced Latin at entrance.

B2—Livy (selections from BOOKS XXI, XXII). Professor KNAPP and Dr. STURTEVANT. Latin prose composition weekly. Professor KNAPP. 3 points.

Sections I and II, W. and F. at 1; Prose composition, Section I, M. at 9; Section II, at 1.

Prerequisite: Course B1.

Prescribed for freshmen as above.

1-Catullus and Tibullus. Miss Hirst. 2 points.

Tu. and Th. at 11.

2-Horace: Sermones. Professor KNAPP. 2 points.

Tu. and Th. at 11.

3—Pliny: Epistles (selections). Dr. Sturtevant. 3 points.

M., W., and F. at 10.

4-Tacitus: Dialogus; Agricola. Miss Hirst. 3 points.

M., W., and F. at 10.

5—Cicero: Tusculan Disputations. Miss Hirst. 3 points.

M., W., and F. at 11.

6-Seneca: Tragedies. Dr. STURTEVANT. 3 points.

M., W., and F. at 11.

7—Terence: Andria and Adelphoe. Professor KNAPP. 2 points. Tu. and Th. at 11.

8—Plautus: Captivi and Mostellaria. Professor KNAPP. 2 points. Tu. and Th. at 11.

9-10—Latin Literature: lectures and required reading. Professor KNAPP. 6 points.

Tu. and Th. at 3.

13-14—Elementary Latin Prose Composition. Professor KNAPP 2 points.

Section I, M. at 9; Section II, at 1.

This course may be elected by second-, third-, or fourth-year students who have not previously counted any course in Latin composition toward the degree.

15-16—Intermediate Latin Prose Composition. Miss Hirst. 2 points.

Th. at 3.

17-18—Advanced Latin Prose Composition. Miss Hirst. 2 points. Th. at 10.

19-20—Roman Life and Thought: lectures and readings. Professor KNAPP. 2 points.

Tu. at 9.

This course constitutes the third hour of Course A1-A2, and may be elected by any student taking any other course under the department.

†51-52—Latin Readings. Professor Lodge. 6 points.

M., W., and F. at 10.

†101-102—Latin Readings, advanced. Professor Lodge. 4 points. Tu. and Th. at 10.

MATHEMATICS

A1, A2—Geometry; Algebra and Trigonometry. Solid geometry; algebra, including permutations and combinations, determinants, and logarithms; trigonometry, including the use of tables, the solution of

triangles, and the important analytical formulæ. Professor Kasner and Mr. Krathwohl. 6 points.

Sections I and II, M., W., and F. at 9; Section III, M., W., and F. at 10; Section IV, Tu., Th., and S. at 9.

Prescribed for freshmen that did not present advanced mathematics at entrance.

21—Analytical Geometry. Introduction to the analytical geometry of the plane and of space. Professor Kasner. 3 points.

M., W., and F. at 1.

Prerequisite: Course A1, A2 or advanced entrance mathematics.

22—Calculus. Elementary course in the differential and integral calculus. Professor Kasner. 3 points.

M., W., and F. at 1.

Prerequisite: Course 21.

23-24—Theory of Equations. Algebraic and numerical solution of equations, determinants, complex numbers. Mr. Krathwohl. 6 points.

M., W., and F. at 2.

Prerequisite: Course A1, A2.

25, 26—Calculus. Differential and integral calculus. Professor Cole. Course 25, 2 points; Course 26, 4 points.

M., W., and F. at 11.

Prerequisite: Course 22.

[27–28—Projective Geometry. Projective methods of pure geometry. 6 points.

Prerequisite: Course 21.

Not given in 1908-09.]

31-32—Advanced Analytical Geometry. Modern methods in analytical geometry; solid analytical geometry. Mr. Krathwohl. 6 points..

M., W., and F. at 1.

Prerequisite or parallel: Course 25, 26.

[33-34—The Fundamental Concepts of Modern Mathematics. Lectures, discussions, and reports. Professor Kasner. 6 points.

Prerequisite: Course 25, 26.

Not given in 1908-09.]

[35-36—General Introduction to Higher Mathematics. Professor Kasner. 6 points.

Prerequisite: Course 25, 26.

Not given in 1908-09.]

†53-54—Applied Mathematics. Mr. Upton. 6 points.

M., W., and F. at 3.

†151-152—History of Mathematics. Professor D. E. Smith. 4 points.

Tu. and Th. at 9.

MECHANICS

25-26—Theoretical Mechanics. Professor Kasner. 6 points.

M., W., and F. at 10.

Prerequisite or parallel: Mathematics 25, 26.

MUSIC

A full statement of the nature of the music courses, the requirements for admission thereto, and the regulations concerning registration therefor will be found in the current edition of the Announcement of the Faculty of Fine Arts, of which the Department of Music is part; this can be obtained, without charge, upon application to the Secretary of Columbia University. For Courses 1-2, 5-6, 25-26, and 33-34 no previous knowledge of music is required.

*1-2—General Musical Course. History and appreciation of music, with illustrations. Professor McWhood. 2 points.

F. at 10.

This course may be combined with Course 5-6 into a two-hour general course.

*3-4—General Musical Course, advanced. Discussion of modern music. Professor RÜBNER. 4 points.

W. and F. at 9.

Prerequisite: Course 1-2.

*5-6—Analysis of Musical Sound. Musical sounds in general; description of orchestral instruments, fully illustrated. Professor Mc-Whood. 2 points.

W. at 10.

This course may be combined with Course r-2 into a two-hour general course.

*7-8—Harmony. Professor McWhood. 4 points.

W. and F. at 11.

Prerequisite: a knowledge of musical notation.

Students in Course 7-8 are recommended to take also Course 25-26.

*9-10—Advanced Harmony and Practical Composition. Professor McWhood. 2 points.

F. at 1.

Prerequisite: Course 7-8.

*II-I2-Counterpoint. Professor McWhood. 4 points.

W. and F. at 2.

Prerequisite: Course 7-8.

*13-14—Free Composition. Professor Rübner. 2 points.

Th. at II.

Prerequisite: Course 9-10.

*15-16—Orchestration. Professor Rübner. 2 points.

Th. at 12.

Prerequisite: Courses 9-10 and 11-12.

*25-26—Musical Dictation. Professor McWhood. 1 point, when taken in connection with Course 7-8.

W. at I.

*27-28—Musical Dictation, advanced. Professor McWhood. I point, when taken in connection with Course 9-10 or Course 11-12.

F. at 3.

Prerequisite: Courses 7-8 and 25-26.

*33-34—University Chorus. A mixed chorus, open to all students. Professor Rübner. I point, when taken in connection with some other course in music.

Hour to be arranged.

*101-102—Free Composition, advanced. Professor Rübner. 2 points.

Th. at q.

Prerequisite: Course 13-14.

*103-104—Orchestration and Symphonic Form, advanced. Professor Rübner. 2 points.

Th. at 10.

Prerequisite: Course 15-16.

PHILOSOPHY AND PSYCHOLOGY

Philosophy

AI-A2—General Psychology; first half-year. Logic and Scientific Method; second half-year. Professor Montague and Dr. Brown. 6 points.

Section I (names A-D inclusive), M., W., and F. at 9; Sections II and III (names E-N) at 10; Section IV (names O-Z) at 11.

Prescribed for sophomores.

21-22—Ethics. Professor Lord. 6 points.

M., W., and F. at 1.

Prerequisite: Course A1-A2.

42-Introduction to Esthetics. Dr. Brown. 3 points.

M., W., and F. at 2.

*121-122—Psychological Ethics. Professor Dewey. 4 points. M. and W. at 1.

*127-128—Pagan and Christian Ethics. Professor Miller. 4 points. Tu. and Th. at 3.

161-162—The History of Philosophy. Professor Montague. 6 points.

M., W., and F. at 9.

Prerequisite: Course A1-A2.

*169-170—The Philosophy of Plato and Aristotle. Professor Wood-BRIDGE and Dr. Bush. 4 points.

M. and W. at 3.

Prerequisite: Course 161-162.

For other courses in Philosophy open to specially qualified Barnard seniors, but not credited towards the Bachelor's degrees, students are referred to the Announcement of the Division of Philosophy, Psychology, and Anthropology.

Psychology

For the elementary course in psychology which is prerequisite to all other courses in this subject, see Philosophy A1.

7-8—Experimental Psychology, Introductory Course. Mr. Wood-ROW. 2 lectures and 4 hours of laboratory work, counting as 8 points. Tu. and Th. at 2; laboratory work M. and W. afternoons.

*III-II2—Experimental Psychology, Advanced Course. Professor Cattell. 4 points.

Tu. and Th. at 10.

Prerequisite: Course 7-8.

*113-114—Experimental Psychology. Laboratory work. 2 to 8 hours weekly, counting as 2 to 8 points. Professor Cattell, assisted by Mr. Hollingworth.

M., Tu., W., and Th., 2-4.

Parallel: Course III-II2.

PHYSICAL EDUCATION

†A1-A2—Lectures on personal hygiene, elementary graded exercises, games and dancing. Miss Calhoun. 2 hours a week. 2 points. Section I, M. and W. at 2; Section II at 3.

Gymnasium fee, \$7.

Prescribed for freshmen.

†BI-B2—Lectures on personal hygiene, graded gymnastic exercises, games and dancing. Miss Calhoun. 2 hours a week. 2 points. Section I, Tu. and Th. at 2; Section II at 3.

Gymnasium fee, \$7.

Prescribed for sophomores.

Note—An annual gymnasium fee of \$7 is required of all students in Barnard College. This entitles the student to a locker and the use of the gymnasium, swimming-pool, hand-ball courts, and bowling alleys at scheduled hours.

For detailed description of other courses in Hygiene and Physical Education, offered by the Faculty of Teachers College, and open to Barnard College students, see the Announcement of the Division of Physical Education.

PHYSICS

year. Magnetism, electricity, and light; second half-year. Professor Maltby, Dr. Williams and Mr. Farwell. 5 hours, lectures, discussions, and laboratory work. 6 points.

Tu., and Th. at 11.

131—Mechanics and Properties of Matter. Mr. FARWELL. 2 lectures and 2 or 4 hours of laboratory work. 3 or 4 points.

Hours to be arranged.

Prerequisite: Course 11-12.

132—Light. Dr. Williams. 2 lectures and 2 or 4 hours of laboratory work. 3 or 4 points.

Hours to be arranged.

Prerequisite: Course 11-12.

134—Heat. Mr. FARWELL. 2 lectures and 2 or 4 hours of laboratory work. 3 or 4 points.

Hours to be arranged.

Prerequisite: Course 11-12.

135—Sound. Professor Maltby. 2 lectures and 2 or 4 hours of laboratory work. 3 or 4 points.

Hours to be arranged.

Prerequisite: Course 11-12.

Given in 1908-09 and alternate years.

[137—Electricity and Magnetism. Dr. WILLIAMS. 2 lectures and 2 or 4 hours of laboratory work. 3 or 4 points.

Prerequisite: Course 11-12.

Not given in 1908-09; given in 1909-10 and alternate years.]

138—Electricity. Professor Maltby. 3 lectures. 3 points.

Hours to be arranged.

Prerequisite: Course 137.

145-146—Physical Chemistry. Professor Maltby. 3 lectures and 2, 4, or 6 hours of laboratory work. 8, 10, or 12 points.

Hours to be arranged.

Prerequisites: Courses in general physics, chemistry—organic and inorganic—and the elements of calculus. As a minor to candidates for the degrees of A.M. and Ph.D.; or with a thesis as a major for the degree of A.M.

(For Theoretical Mechanics, see Mechanics 25-26.)

Psychology. See Philosophy and Psychology.

ROMANCE LANGUAGES AND LITERATURES

French

A1-A2—Elementary Course. Mr. Muller and Dr. Gerig. 6 points.

M., W., and F. Section I at 10; Section II at 3.

Prescribed for students who did not present French at entrance.

B1, B2—Grammar, Reading, Composition. Mr. Muller and Dr. Gill. 6 points.

M., W., and F. at 11.

Prerequisite to Course B1: Course A1-A2, or elementary entrance French.

Prerequisite to Course B2: Course B1, or intermediate entrance French.

1-2—General Introduction to the Study of French Literature.

Reading, composition and lectures. Professor Page, Mr. Muller and Dr. Gerig. 6 or 8 points.

M., W., and F. at 3; (and for students entering on intermediate French, also Tu. at 3).

Prerequisite: Course B2, or advanced entrance French.

3-4—Historical French. Practice in reading, writing, and speaking French. Professor JORDAN. 6 points.

M., W., and F. at 10.

Prerequisite: Course 1-2.

5-6—History of French Literature during the Seventeenth Century. Professor Page. 6 points.

M., W., and F. at 11.

Prerequisite: grade C in Course 1-2, or Course 3-4.

15-16—French Conversation, General Course. Mr. Muller. One hour a week.

May be omitted in 1908-1909.

The aim of this course will be to give the students an opportunity to use the vocabulary acquired by previous reading. It will consist of easy anecdotes read and discussed in the class, introducing subjects of every-day conversation. It cannot be counted for a degree.

101-102—History of French Literature during the Eighteenth Century. Mr. Bargy. 6 points.

M., W., and F. at 1.

Prerequisite: Course 5-6.

*105-106—History of the Literary Movement in France during the First Half of the Nineteenth Century. Professor Page. 4 points.

M. and W. at 3.

Prerequisite: Course 5-6.

Courses 105–106 and 107–108 are given in alternate years.

[*107-108—History of the Literary Movement in France during the Second Half of the Nineteenth Century. Professor Page. 4 points.

Prerequisite: Course 5-6.

Not given in 1908-1909.]

*III-II2—French Literature in the Sixteenth Century. Professor Loiseaux. 4 points.

Tu. and Th. at 3.

Prerequisite: Course 5-6.

*113, 114—Old French: Reading and Discussion of Selected Extracts and of Complete Texts. Professor Todd. 4 points.

Tu. and Th. at 3.

Prerequisite: Course 5-6.

Italian

1-2—Elementary Course. Grammar, reading, composition. Dr. Gerig. 6 points.

M., W., and F. at 1.

This course may not be taken at the same time with Spanish 1-2.

3-4—General Introduction to the Study of Italian Literature. Professor Speranza. 4 points.

M., W., and F. at 1, and a fourth hour to be arranged.

In 1908-09, to be given during the first half-year only.

Prerequisite: Course 1-2.

[*131—Italian Literature of the Fourteenth Century, exclusive of the Divina Commedia. Composition. Professor Speranza. 3 points.

Prerequisite: Course 3-4.

Not given in 1908-09.]

[*132—Italian Literature of the Fifteenth Century. Composition. Professor Speranza. 3 points.

Prerequisite: Course 131.

Not given in 1908-09.]

Courses 131-132 and 133-134 are given in alternate years.

*133—Italian Literature of the Sixteenth Century. Composition. Professor Speranza. 3 points.

M., W., and F. at 3.

Prerequisite: Course 3-4.

*135-136—Critical Study of Dante's Divina Commedia. First and second courses. Professor Speranza. 3 points.

Tu. and Th. at 3, and a third hour to be arranged.

In 1908-09, to be given during the first half-year only.

Prerequisite: Either Course 132 or 133.

Courses 135-136 and 137-138 are given in alternate years.

[*137-138—Critical Study of Dante's Divina Commedia. Third and fourth courses. Professor Speranza. 4 points.

Prerequisite: Either Course 132 or 133.

Not given in 1908-09.]

Spanish

1-2—Elementary Course. Grammar, reading, composition. Professor Loiseaux. 6 points.

M., W., and F. at 11.

This course may not be taken at the same time with Italian 1-2.

3-4—General Introduction to Spanish Literature. Grammar, reading, compositon. Dr. Fitz-Gerald. 6 points.

M., W., and F. at 10.

Prerequisite: Course 1-2.

11-Spanish Conversation. 1 hour. Professor Loiseaux.

Hour to be arranged.

May be omitted in 1908-09.

This course cannot be counted for a degree.

[*141-142—The Novela of the Golden Age. Dr. Fitz-Gerald. 6 points.

Prerequisite: Course 3-4. Not given in 1908-1909.]

Courses 141-142 and 143-144 are given in alternate years.

*143-144—The Spanish Classical Drama. Dr. FITZ-GERALD. 6 points.

M., W., and F. at 3.

Prerequisite: Course 3-4.

Romance Philology

*151—Introduction to Romance Philology, especially Phonology. Professor Todd. 2 points.

M. and W. at 4.

Prerequisite: French 5-6.

*152—Introduction to Romance Philology, especially Morphology. Professor Todd. 2 points.

M. and W. at 4.

Prerequisite: Course 151.

Sociology. See Economics and Social Science

ZOÖLOGY

I(a)-2(a)—General Biology and General Zoölogy. Elementary course. Professor Crampton, Dr. Osburn, Miss Dederer, and Miss Gregory. 2 lectures and 4 hours of laboratory work. 8 points.

Tu. and Th. at 1. Laboratory work, Tu. and Th., or W. and F., 2-4.

Laboratory fee, \$5.

Open to sophomores, juniors, and seniors; especially designed for students of physiology, geology, and medicine, as well as for those who intend to pursue zoölogy and botany.

I(b)—Histology. I lecture and 2 hours of laboratory work. 2 points.

W. at 9.

Laboratory fee, \$2.50, unless taken with Course I(a).

Prerequisite or parallel: Course I(a). Recommended as a parallel to Course I(a).

2(b)—Embryology. 1 lecture and 2 hours of laboratory work. 2 points.

W. at 9.

Laboratory fee, \$2.50, unless taken with Course 2(a) or Course 102.

Prerequisite or parallel: Course 2(a). Recommended as a parallel to Course 2(a).

4—Experimental Biology. An introduction to the experimental study of growth, reactions to stimuli, development, inheritance, and related topics. Professor Crampton. 3 hours of lectures, conferences, and laboratory work. 2 points.

M. at 2.

Laboratory fee, \$1.25. Prerequisite: Course 1-2.

This course gives opportunity to undergraduates to become familiar with some of the methods and results of experimental research, and forms a desirable preparation for graduate work in experimental subjects.

5—General Biology. The general principles of biology, variation, inheritance, evolution, geographical distribution, animal coloration, and related topics. Professor CRAMPTON. 3 hours of lectures, conferences and laboratory work. 2 points.

M. at 2.

Laboratory fee, \$1.25.

Prerequisite: Course 1-2.

This course supplements the general discussions given in Courses 1-2 and 101-102 and gives opportunity for a more critical and extended treatment of general principles.

TON, Dr. OSBURN, Miss DEDERER and Miss GREGORY. 3 lectures and 6 hours of laboratory work. 12 points.

M., W., and F. 9-12.

Laboratory fee, \$5.

Prerequisite: Course 1-2 including 2(b).

This course is designed for students intending to enter medicine, also for students of zoology and botany, as graduate subjects.

151-152—General Physiology. General principles of animal physiology. Dr. Osburn. 2 lectures, and 4 hours of demonstration and laboratory work. 8 points.

Tu. and Th., 9-12.

Laboratory fee, \$5.

Open to juniors and seniors.

This course is designed for students of zoology, botany, and psychology, as well as for students intending to study medicine, and may be taken together with, or subsequent to, Course 1-2.

153-154—Practical Zoölogy and Embryology. Miss Dederer. 3 hours of conference and laboratory work. 4 points.

Hours to be arranged.

Laboratory fee, \$5.

Prerequisite: Course 1-2.

This course is designed for students of zoölogy desiring practice in the preparation and mounting of zoölogical. histological, and embryological materials for microscopic examination.

SCHEME OF

Hours	MONDAY	TUESDAY	WEDNESDAY
А.м.	*Architecture 23-24 Botany 51-52 †Education A (b) (I, II) German 1-2 (I) German 5-6 (I) German 19-20 Latin B1, B2 (I) Latin 13-14 (I) Mathematics A1-A2 (I, II) Philosophy A1-A2 (I) Philosophy 161-162 Zoölogy 101-102	*Anthropology 121-122 Botany 153, 156 †Education 19-20 English B1, B2 English 37-38 German 13-14 Latin A1, A2 (I, II) Latin 19-20 Mathematics A1, A2 (IV) †Mathematics 151-152 Zoölogy 151-152	*Anthropology 101-102 Botany 51-52 †Education A(b) (I, II) German 1-2 (I) German 5-6 (I) German 19-20 Mathematics A1, A2 (I, II) *Music 3-4 Philosophy A1-A2 (I) Philosophy 161-162 Zoölogy 1(b), 2(b) Zoölogy 101-102
10	*Anthropology 115-116 Economics A (I, II, III, IV) Economics 4 (I, II) †Education B (VII) English 31-32 French A1-A2 (I) French 3-4 German A1-A2 (I) Greek 3, 4 History 3-4 Latin 3, 4 †Latin 51-52 Mathematics A1, A2 (III) Mechanics 25-26 Philosophy A1-A2 (II, III) Spanish 3-4 Zoölogy 101-102	*Anthropology 117-118 *Architecture 21-22 Economics A (III, IV) †Education 21-22 English A1, A2 English 33-34 †Geography 1-2 Geology 1-2 Geology 101-102 German 11, 12 Greek 23-24 †Latin 101-102 *Psychology 111-112 Zoölogy 151-152	*Anthropology 115-116 Economics A (I, II) Economics 4 (I, II) †Education B (VII) English 23-24 (I) English 31-32 French A1-A2 (I) French 3-4 German A1-A2 (I) Greek 3, 4 History 3-4 Latin 3, 4 †Latin 51-52 Mathematics A1, A2 (III) Mechanics 25-26 *Music 5-6 Philosophy A1-A2 (II, III) Spanish 3-4 Zoölogy 101-102
11	*Anthropology 103-104 *Architecture 25-26 Chemistry 5-6 †Education 87-88 †Education 121-122 English 25-26 English 35-36 French B1, B2 French 5-6 German A1-A2 (II) Greek 5, 6 Greek 17-18 History 11-12 History 13-14 Latin 5, 6 Mathematics 25, 26 Philosophy A1-A2 (IV) Spanish 1-2 Zoölogy 101-102	*Anthropology 109-110 *Architecture 21-22 *Astronomy 1-2 Botany 53-54 Chemistry 63, 64 Economics 109, 110 English 1, 2 †Geography 1-2 German 17-18 *German 131-132 Greek 7 Latin 1, 2 Latin 7, 8 Physics 11-12 Zoölogy 151-152	*Anthropology 103-104 Chemistry 5-6 †Education 87-88 †Education 121-122 English 23-24 (II) English 25-26 English 35-36 French BI, B2 French 5-6 German AI-A2 (II) Greek 5, 6 History 11-12 History 13-14 Latin 5, 6 Mathematics 25, 26 *Music 7-8 Philosophy AI-A2 (IV) Spanish 1-2 Zoölogy 101-102

Courses marked with an asterisk [*] are given at Columbia University;

ATTENDANCE

THURSDAY	FRIDAY	SATURDAY
*Anthropology 121-122 Botany 153, 156 †Education 19-20 English B1, B2 English 37-38 German 13-14 Latin A1, A2 (I, II) Mathematics A1, A2 (IV) †Mathematics 151-152 *Music 101-102 Zoölogy 151-152	*Anthropology 101-102 *Architecture 23-24 Botany 51-52 Education A (b) (I, II) German 1-2 (I) German 5-6 (I) Mathematics A1, A2 (I, II) *Music 3-4 Philosophy A1-A2 (I) Philosophy 161-162 Zoölogy 101-102	History A1-A2 (I) Latin A1, A2 (I, II) Mathematics A1, A2 (IV)
*Anthropology 117-118 *Architecture 21-22 Economics A (III, IV) †Education 21-22 English A1, A2 English 33-34 †Geography 1-2 Geology 1-2 Geology 101-102 German 3-4 (I) German 11, 12 Latin 17-18 †Latin 101-102 *Music 103-104 *Psychology 111-112 Zoölogy 151-152	Economics A (I, II) Economics 4 (I, II) †Education B (VII) English 23-24 (I) French AI-A2 (I) French 3-4 German AI-A2 (I) Greek 3, 4 Greek 25-26 History 3-4 Latin 3, 4 †Latin 51-52 Mathematics AI, A2 (III) Mechanics 25-26 *Music I-2 Philosophy AI-A2 (II, III) Spanish 3-4 Zoölogy 101-102	English A1, A2 †Geography 1–2 History A1–A2 (II)
*Anthropology 109-110 *Astronomy 1-2 Botany 53-54 Chemistry 63, 64 Economics 109, 110 English 1, 2 German 17-18 *German 131-132 Greek 7 History A1-A2 (I) Latin 1, 2 Latin 7, 8 *Music 13-14 Physics 11-12 Zoölogy 151-152	*Architecture 25-26 Chemistry 5-6 English 23-24 (II) English 35-36 French B1, B2 French 5-6 German A1-A2 (II) Greek 5, 6 History 11-12 History 13-14 Latin 5, 6 Mathematics 25, 26 *Music 7-8 Philosophy A1-A2 (IV) Spanish 1-2 Zoölogy 101-102	

those marked with a dagger [†] are given at Teachers College.

SCHEME OF

Hours	MONDAY	TUESDAY	WEDNESDAY
Р.М.	Anthropology 1-2 Chemistry 41-42 †English 55-56 French 101-102 German 1-2 (II, III) Gerek 9, 10 Italian 1-2 Italian 3-4 Latin B1, B2 (II) Latin 13-14 (II) Mathematics 21, 22 Mathematics 31-32 Philosophy 21-22 *Philosophy 121-122	German 3-4 (I) German 7, 8 History A ₁ -A ₂ (I, II) Zoölogy 1(a)-2(a)	Anthropology 1-2 Chemistry 41-42 †English 55-56 French 101-102 German 1-2 (II, III) German 5-6 (II, III) Greek 9, 10 Italian 1-2 Italian 3-4 Latin B1, B2 (I, II) Mathematics 21, 22 Mathematics 31-32 *Music 25-26 Philosophy 21-22 *Philosophy 121-122
2.10	†Education A (b) (V, VII) English 7-8 English 29-30 German A1-A2 (III) *German 107-108 Greek 1-2 History 169-170 Mathematics 23-24 Philosophy 42 †Physical Education A1-A2 (I) *Psychology 113-114 Zoology 4, 5	†Education 105-106 English 41-42 German 3-4 (II) German 9, 10 *German 109-110 Greek 1-2 Greek 19-20 History 9-10 †Physical Education B1-B2 (I) Psychology 7-8 *Psychology 113-114 Sociology 13-14	†Education A(b) (V, VII) English 7-8 English 29-30 German A1-A2 (III) *German 107-108 Greek 1-2 History 169-170 Mathematics 23-24 *Music 11-12 Philosophy 42 †Physical Education A1-A2 (I) *Psychology 113-114
	*Anthropology 105-106 Botany 55-56 French AI-A2 (II) French 1-2 *French 105-106 German AI-A2 (IV) *Germanic 123-124 Greek 15, 16 *Italian 133 †Mathematics 53-54 *Philosophy 169-170 †Physical Education AI-A2 (II) *Psychology 113-114 *Sociology 151-152 *Spanish 143-144	History 51-52 History 121-122 *Italian 135-136 Latin 9-10 *Philosophy 127-128 †Physical Education B1-B2 (II)	*Anthropology 105-106 French A1-A2 (II) French 1-2 *French 105-106 German A1-A2 (IV) *Germanic 123-124 Greek 15, 16 *Italian 133 †Mathematics 53-54 *Philosophy 169-170 †Physical Education A1-A2 (II) *Psychology 113-114 *Sociology 151-152 *Spanish 143-144
1 10	†Education A (c) *Germanic 127–128 *German 133–134 *Romance Philology 151, 152	†Fine Arts 53-54 *German 105, 106 *German 129-130	*Germanic 127–128 *German 133–134 *Romance Philology 151,152
5.10		†Education 2 †Fine Arts 53-54 (5-5.30)	

Courses marked with an asterisk [*] are given at Columbia University;

ATTENDANCE (Continued)

THURSDAY	FRIDAY	SATURDAY
German 7, 8 History A1-A2 (II) Zoölogy 1(a)-2(a)	Anthropology 1-2 †English 55-56 French 101-102 German 1-2 (II, III) Greek 9, 10 Italian 1-2 Italian 3-4 Latin B1, B2 (I, II) Mathematics 21, 22 Mathematics 31-32 *Music 9-10 Philosophy 21-22	
†Education 105-106 English 41-42 German 3-4 (II) German 9, 10 *German 109-110 Greek 1-2 Greek 19-20 History 9-10 †Physical Education B1-B2 (I) Psychology 7-8 *Psychology 113-114 Sociology 13-14	†Education A(b) (V, VII) English 7–8 German A ₁ –A ₂ (III) Greek 1–2 Mathematics 23–24 *Music 11–12 Philosophy 42	
English 45-46 *French 111-112 *Prench 113, 114 *German 113-114 *Germanic 125-126 Greek 8 †History 51-52 History 121-122 *Italian 135-136 Latin 9-10 Latin 15-16 *Philosophy 127-128 †Physical Education B1-B2 (II) *Psychology 113-114 Sociology 11-12	*Anthropology 127 French A1-A2 (II) French 1-2 German A1-A2 (IV) Greek 15, 16 *Italian 133 †Mathematics 53-54 *Music 27-28 *Spanish 143-144	
†Education B *German 105, 106 *German 129–130		
†Education 2		

those marked with a dagger [†] are given at Teachers College.

ACADEMIC CALENDAR

1908-1909

1908—Sept. 1—Tuesday, Last day for filing applications for delinquent examinations.

Sept. 7—Monday, Last day for filing applications for September entrance examinations by candidates for admission.

Sept. 14—Monday, Entrance examinations and examinations for deficient and debarred students begin.

Sept. 16—Wednesday, Registration begins.

Sept. 22—Tuesday, Registration ceases for students previously matriculated. Later applications received only upon payment of an additional fee of \$5.

Sept. 23—Wednesday, First half-year, 19th year, begins.
Registration ceases for students matriculating for the first time. Later applications received only upon payment of an additional fee of \$5.

Nov. 3—Tuesday, Election Day, holiday.

Nov. 26—Thursday,

to

Nov. 28—Saturday, inclusive, Thanksgiving Day holidays.

Dec. 19—Saturday afternoon,

to

1909—Jan. 2—Saturday, inclusive, Christmas holidays.

Jan. 11—Monday, Last day for filing applications for mid-year entrance examinations.

Jan. 18-Monday, Mid-year entrance examinations begin.

Jan. 20—Wednesday, Mid-year examinations begin.

Jan. 30-Saturday, First half-year ends.

Feb. 1-Monday, Second half-year begins.

Registration ceases for students entering the second half-year. Later applications received only upon payment of an additional fee of \$5.

Feb. 22—Monday, Washington's Birthday, holiday.

April 1—Thursday, Last day for filing applications for scholarships.

April 8—Thursday,

to

April 12-Monday, inclusive, Easter holidays.

May 10—Monday, Final examinations for candidates for graduation begin.

May 21—Friday, Class Day.

May 23—Sunday, Baccalaureate service.

May 26—Wednesday, Commencement Day.

May 27—Thursday, Final examinations begin.

May 30—Sunday, Memorial Day.

May 31—Monday, holiday.

June 9—Wednesday, second half-year ends.

June 14—Monday, Examinations of the College Entrance Examination Board begin. The dates for filing applications are contained in a circular issued by the Board, Post-office Sub-station 84, New York, N. Y.

Sept. 1—Wednesday, Last day for filing applications for delinquent examinations.

Sept. 6—Monday, Last day for filing applications for September entrance examinations by candidates for admission.

Sept. 13—Monday, Entrance examinations and examinations for deficient and debarred students begin.

Sept. 15—Wednesday, Registration begins.

Sept. 21—Tuesday, Registration ceases for students previously matriculated. Later applications received only upon payment of an additional fee of \$5.

Sept. 22—Wednesday, First half-year, 20th year, begins.

Registration ceases for students matriculating for the first time. Later applications received only upon payment of an additional fee of \$5.









